ASSESSMENT OF QUALITY OF LIFE IN ALCOHOL DEPENDENTS TAKING TREATMENT IN GOVT. DEADDICTION CENTRE, CHENNAI

Dissertation Submitted to

In partial fulfilment of the regulations for the award of the degree of

DOCTOR OF MEDICINE

BRANCH - XV

M.D. (COMMUNITY MEDICINE)

THE TAMILNADU DR.MGR MEDICAL UNIVERSITY,

CHENNAI,

TAMIL NADU.

APRIL 2016

BONAFIDE CERTIFICATE

This is to certify that this dissertation entitled **"ASSESSMENT OF QUALITY OF LIFE IN ALCOHOL DEPENDENTS TAKING TREATMENT IN GOVT. DEADDICTION CENTRE, CHENNAI"** submitted by **Dr. R. SELVARAJ**, post graduate student, Department of Community Medicine for partial fulfillment for the award of the degree , Doctor of Medicine in Community Medicine by The Tamilnadu Dr. M.G.R. Medical University, Chennai is a bonafide work done by him at GOVERNMENT KILPAUK MEDICALCOLLEGE, CHENNAI, during the academic year 2013-2016.

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DECLARATION

I, **Dr. R. SELVARAJ**, solemnly declare that this dissertation, entitled "**ASSESSMENT OF QUALITY OF LIFE IN ALCOHOL DEPENDENTS TAKING TREATMENT IN GOVT. DEADDICTION CENTRE, CHENNAI"**, has been prepared by me, under the expert guidance and supervision of **Prof. Dr. K. Mary Ramola, M.D.,** Professor and HOD, Department of Community Medicine, Government Kilpauk Medical College Hospital, Chennai and submitted in partial fulfilment of the regulations for the award of the degree M.D. (Community Medicine) by The Tamil Nadu Dr. M.G.R. Medical University and the examination to be held in April 2016.

This study was conducted at Govt. Deaddiction centre, Communicable Diseases Hospital, Tondiarpet, Chennai. I have not submitted this dissertation previously to any university for the award of any degree or diploma.

Place: Chennai **(Dr. R. SELVARAJ)**
Date:

DECLARATION

I, **Prof. Dr. K. MARY RAMOLA, M.D.,** Professor and HOD, Department of Community Medicine, Government Kilpauk Medical College Hospital, Chennai declare that this dissertation, entitled "**ASSESSMENT OF QUALITY OF LIFE IN ALCOHOL DEPENDENTS TAKING TREATMENT IN GOVT. DEADDICTION CENTRE, CHENNAI"**, has been prepared under my expert guidance and supervision by **Dr. R. SELVARAJ,** for his partial fulfilment of the regulations for the award of the degree M.D.(Community Medicine) by The Tamil Nadu Dr. M.G.R. Medical University and the examination to be held in April 2016.

Place: Chennai
Date:

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CERTIFICATE OF APPROVAL

The Institutional Ethical Committee of Govt. Kilpauk Medical College, Chennai reviewed and discussed the application for approval "A Study of assessment of quality of life in alhocol dependents taking treatment in Govt. De-addiction centre, in Chennai " – For Project Work submitted by Dr.R.Selvaraj, MD (Community Medicine), PG Student, KMC, Chennai-10.

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As per the reference cited above permission is granted for the student Dr.R.Selvaraj, PG in M.D. (Community Medicine) Kilpauk Medical College to study on "Quality of Life in Alcohol Dependents Taking Treatment in Communicable Diseases Hospital, Tondiarpet, Chennai-81. Subject to the following conditions.

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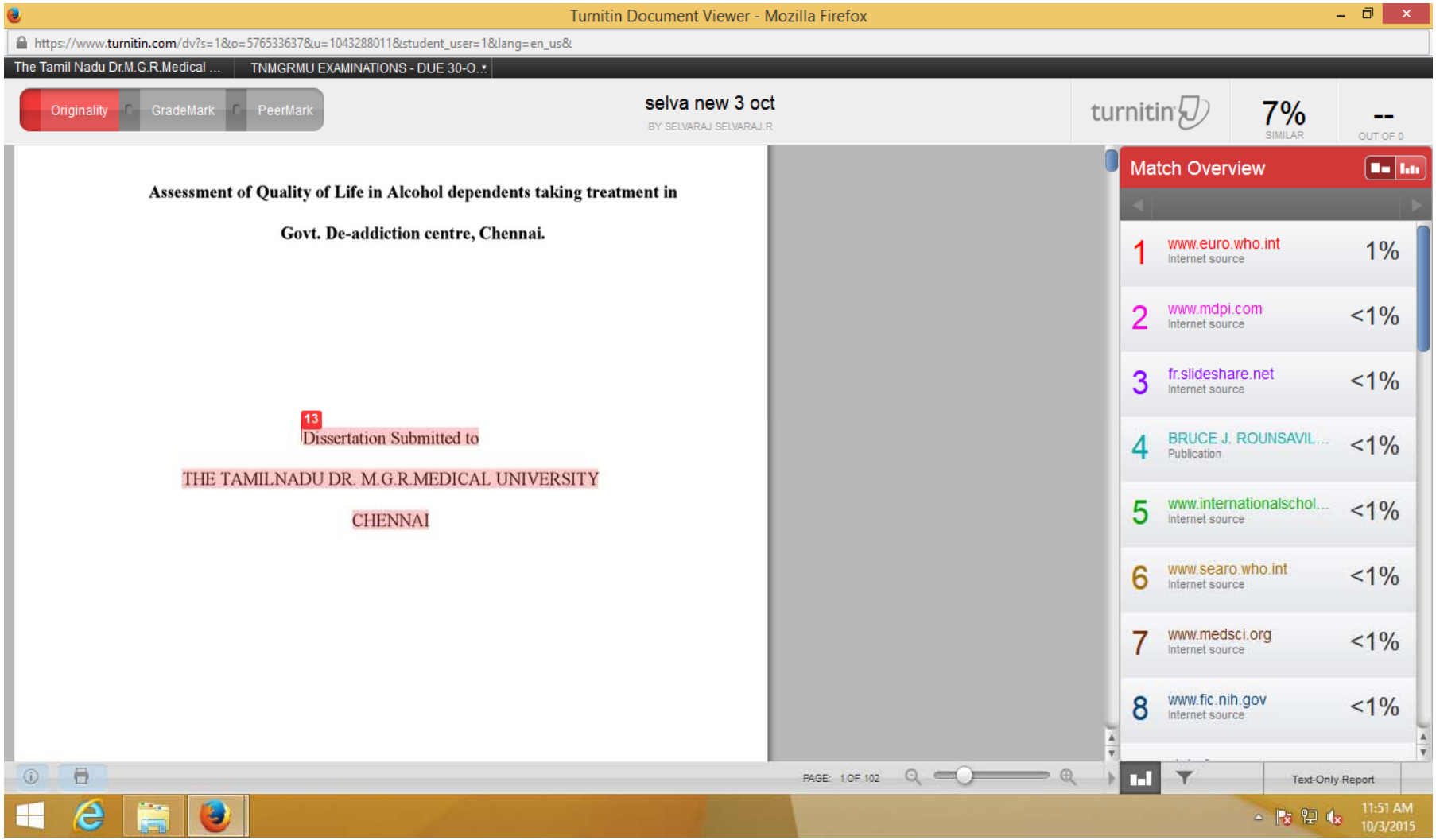
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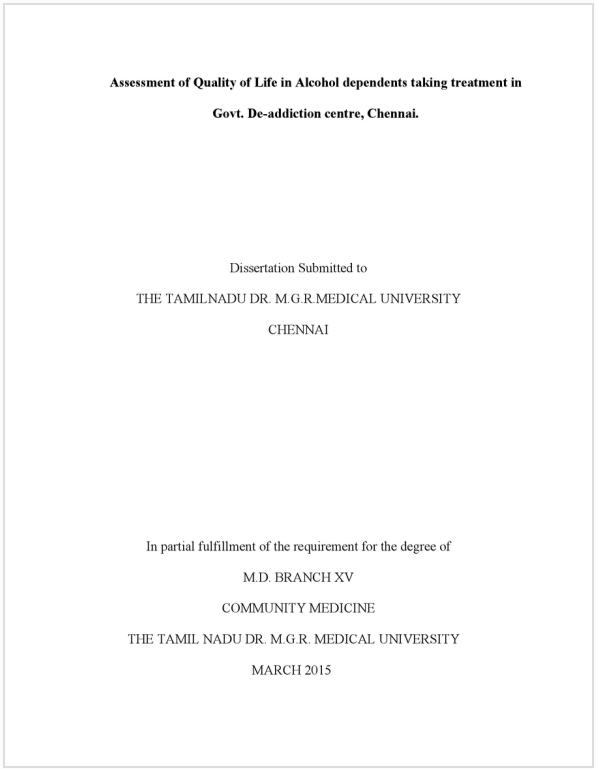

Assessment of Quality of Life in Alcohol dependents taking treatment in Govt. De-addiction centre, Chennai.

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CONTENT

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

WHO	World Health Organization
QoL	Quality of Life
ICD-10	International classification of diseases
MAST	Michigan Alcoholism screening Test
AUDIT	Alcohol user dependence identification test
CAGE	Cut down, Annoyed, Guilty, Eye opener
WHO QoL BREF26	Brief 26 questionnaire of quality of life.
SF -36	Short form health survey
SF-20	Short form health survey abbreviated form.
AlQoL-9	9 item questionnaire of quality of life in alcohol dependents
SADD	Short Alcohol Dependent Data questionnaire

ASSESSMENT OF QUALITY OF LIFE IN ALCOHOL DEPENDENTS TAKING TREATMENT IN GOVT. DEADDICTION CENTRE, CHENNAI

ABSTRACT

BACKGROUND:

In recent years, alcohol dependence become a major social and personal menace in most societies. Patient-reported outcome measures such as QoL may be useful in orientating choice between different therapeutic options. In public health point of view, Assessment of QoL is important to evaluate the effectiveness of existing programs.

OBJECTIVES:

To determine the change in QoL of alcohol dependent patients prospectively over three months follow up and factors associated with the outcome

METERIALS AND METHODS:

A cohort study will be carried out among 30 patients attending Govt. Deaddiction centre, Chennai.

Basic socio-demographic data, Alcohol related variables, Degree of dependence and Quality of life of the participants were studied.

RESULTS:

Quality of life all domain scores at baseline and after three months abstinence were analyzed using paired ‘t’ test.

Basic socio-demographic, general health and alcohol related variables were analyzed as independent variables one by one.

All domain scores at baseline were reduced but significantly improved after three months management.

Factors associated with low QoL at baseline are,

1. Other substance abuse
2. Alcohol use in family members
3. Alcoholrelated deaths in the family
4. Percentage of income spent on alcohol

Factors associated with marked improvement in domain scores are,

1. Aalcohol related accidents
2. Alcohol use in family
3. Duration of drinking
4. Alcohol related deaths in the family

Degree of dependence did not have significant association with all domain scores of QoL

CONCLUSION:

The study showed that alcohol dependents had poor quality of life before treatment and abstinence and regular follow up gave marked improvement.

Keywords: Alcohol dependence, Quality of life, Govt deaddiction centre, treatment outcome

INTRODUCTION

'WELL, I WOKE UP IN THE MORNING
AND BOUGHT MYSELF A BEER,
THE FUTURE IS UNCERTAIN,
AND THE END IS ALWAYS NEAR'.

- Jim Morison & the Doors, 1967.[1]

Heavy alcohol drinking is a major public health problem in most of the developing countries [2].

'Health is state of complete mental, physical and social well-being and not merely an absence of disease or infirmity' [3].

Similarly, mental health is also not merely absence of mental illness.

As per WHO definition, mental health is "A state of balance between the individual and the surrounding world a state of harmony between oneself and others, coexistence between the realities of the self and that of other people and that of the environment."[4.]

Unfortunately the mental well-being of the community is not being assessed properly.

Alcohol Dependance – a health issue:

In our country the main causes for the morbidity and mortality are [5]**:**

1. Coronary arterial diseases

2.Accidents and injuries

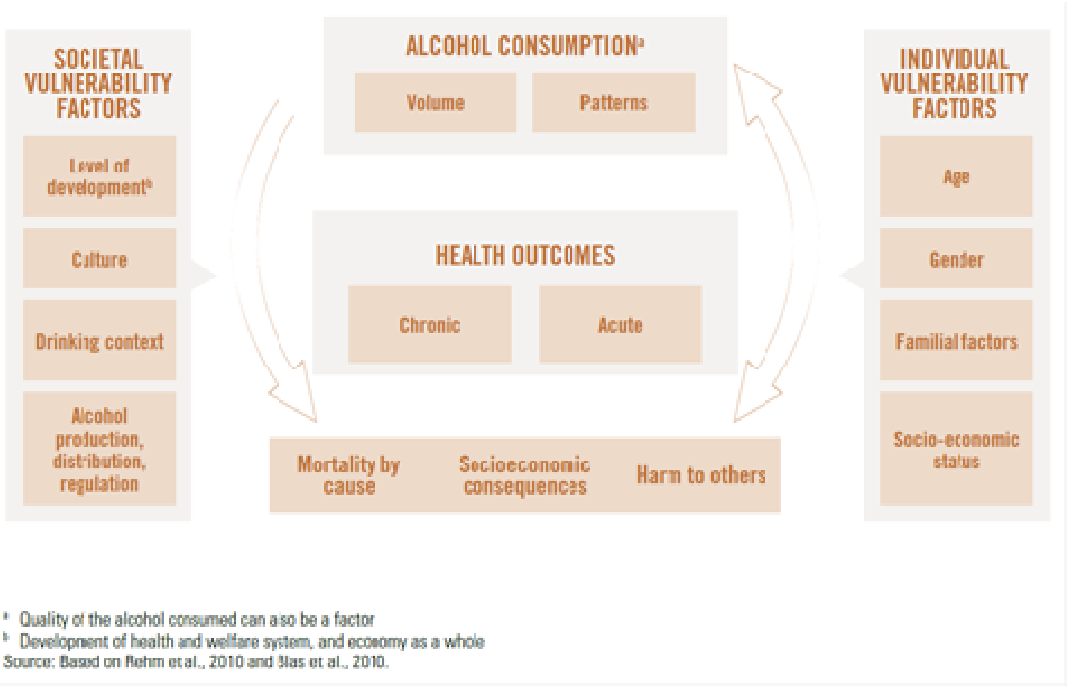
3.Mental illness

As per a systematic review done by Suresh bada math & RavindraSrinivasaraju in 2010 [6] prevalence of psychiatric disorders as follows

1. Adolescent & child disorders	-	110-120 per 1000(12%)
2. Alcohol dependence	-	30-40 per 1000(4%)
3. Geriatric problems	-	25-30 per 1000(3%)
4. Common mental illnesses	-	20-30 per1000(3%)
5. Mood related disorders	-	15-30 per 1000(3%)
6. Psychotic disorders & schizophrenia	-	5-10 per 1000(1%)
7. Cannabis addicts	-	5-10 per 1000(1%)
8. Mentally retarded	-	5-6 per 1000(0.6%)
9. Dementia patients	-	2-5 per 1000(0.5%)
10. Opiate addicts	-	2 per 1000 (0.3%)

So, Alcohol dependence is the second most common psychiatric condition.

Causal model of alcohol consumption and probable health outcomes [7]:



The term Alcohol dependence replaced the word Alcoholism due to its derogatory feel [8].

Mortality Due to Alcohol Dependance:

About 3.3 million deaths yearly caused by the alcohol consumption and this is the main causal factor for about 200 various diseases that contributes 5.9% of all deaths [9].

Morbidity Due to Alcohol Dependance:

As per WHO, 2010 report, total global consumption was equal to 6.2 litre per person aged more than 15 years.

Unrecorded alcohol intake contributes 24.8% of total global intake[10].

Sociocultural risk factors [11]:

Several factors influencing on people to become alcohol dependents as Male role, Lower education, Lower income, Mental breakdown, Cultural ambivalence towards drinking, Certain occupations, Idleness, Self-fulfilling prophesy, Socially condoned drunkenness, Anomie/marginalization, Social stress, Peer pressure(more important), Modeling, Easy availability of alcohol, eligious factors, Very poor family and social support, Problem families and Vulnerability of individuals.

Influence of genetics:

Alcoholism in first-degree relatives plays a powerful role in individual's alcohol misuse. Those who are having positive family histories of alcoholism are twice more prone than those who are not having family history. Positive history in second and third degree relations increases the risk three times. [11]

Biological predisposition:

Persons with positive family history having low physiological sensitivity to alcohol so that leads to over drinking. People with positive alcoholic family history for several generations having highest anxiolytic effect of alcohol[11].

Alcohol dependence divided into five species as per the theory of Jellinek based on pattern of alcohol intake as Alpha, Beta, Gamma, Delta and Epsilon but, this pattern of intake is doubtful in present days[8]

According to Cloninger classification, alcohol dependence grouped into two types as Type1 and Type2[12].

Type1:

- Affects both sexes
- Age of onset>25 years
- High environmental influences
- Family history maybe positive
- Loss of control present
- They are psychologically and high reward dependence

Type2:

- Mostly in males
- <25 years age group

- Strong heritable influences & family history
- No loss of control
- Spontaneous searching for alcohol
- Aggressive behaviour

Complications of Alcohol dependence[13,14]:

Health problems both acute and chronic due to 2 important factors in alcohol misuse patients:

- Amount of alcohol intake, and
- Drinking pattern of alcohol.

MEDICAL COMPLICATIONS:

1. Gastrointestinal system:

- Fatty liver, cirrhosis of liver & ca liver
- GERD, Oesophagealvarices, Carcinoma Oesophagus and Stomach
- Acute and chronic pancreatitis
- Malabsorption

2. Central Nervous System

- Peripheral neuropathy
- Delirium tremens

- Alcoholic hallucinosis
- Alcoholic dementia
- Cerebellar degeneration

3. Others:

- Alcoholic hypoglycemia
- Parotid enlargement, spider naevi, Ascites
- Alcoholic myopathy, Cardiac myopathy and Cardiac beri-beri
- Malnutrition
- Prone to infections
- Sexual problems

SOCIAL COMPLICATIONS:

- Occupational problems
- Financial problems
- Criminality
- Road traffic accidents
- Marital conflicts and divorce

Economy of the families, society and the country grossly affected by alcohol dependence after globalization alcohol use among Indian people becomes very normal [15].

Life expectancy of the alcohol dependents is reduced about 10-12years when comparing to the normal people.

Diagnosing Alcohol Dependence:

ICD-10 diagnostic criteria of alcohol dependence [16]:

It has 6 components, out of which three or more criteria should be experienced in the previous year by the subjects for diagnosing as alcohol dependents.

1. A craving or feeling of the compulsion to use alcohol.
2. Evident impairment of the ability to control use of alcohol. This can be attributed due to difficulties in avoiding initial use, difficulties in discontinuing use, inability in controlling the level of use
3. Withdrawal state of a person, or use of the alcohol to avoid withdrawal symptoms and subjective awareness of this behavior.
4. Presence of tolerance to the effects of alcohol.
5. Progressive neglect of pleasure, behaviors or interests in favour of using alcohol.

6. Persistent use of alcohol despite evident presence of harmful consequences.

Common bio-chemical tests used to diagnosis alcohol dependence in hospital set up are,[15]

1. Gamma-glutamyltransferase(GGT):

- Raised in around 80% of alcohol dependence patients.
- Rapidly returns to normal(with in 48 hours).

2. MCV(Mean corpuscular volume):

- Raised in 60% of alcohol dependents.
- Normal value is 80-90fl.
- It returns to normal in several weeks after abstinence.

GGT and MCV are the most important tests, they can find out 3 out of 4 alcohol dependents.

3. Other biochemical markers are:

1) ALT
2) AST
3) CK
4) Uric acid
5) Alkaline phosphatase
6) Blood triglycerides.

Drunkenness identified by

1) BAC(Blood Alcohol level Concentration)
2) Breath Alcohol Analyzer

Tools for the screening alcohol dependence patients in the community by,

1) MAST(Michigan Alcoholism screening Test)
2) AUDIT Questionnaire
3) CAGE questionnaire (simplest form to use.)

Management of Alcohol dependence:[17]

Stop the alcohol abruptly is the best way to stop alcohol unless the withdrawal symptoms are very severe.

1. Detoxification:

This is the first and important step in Alcohol dependence management.

- Chlordiazepoxide (80-200mg/day) and Diazepam (40-80mg /day) are the drugs of choice for treating detoxification.
- Patients with peripheral neuropathy,Delirium tremens and Wernicke-Korsakoff psychosis are treated with Thiamine 100 mg BD for 3-5 days.

Alcohol dependence needs multi-modal management.

- Behaviour therapy:

- Covert sensitization
- Relaxation techniques
- Assertiveness training
- Self-control skills
- Positive reinforcement.

(Aversion therapy, i.e. sub-threshold electric shock considered as unethical nowadays.)

2. Psychotherapy:

The risks of harmful alcohol use will be educated.

- motivational enhancement therapy
- Cognitive behavior therapy
- Life style modification can be used.

3. Group therapy:

Group meeting by Alcohol Anonymous, is a voluntary self –help group.

4. Deterrent drugs(Alcohol sensitising drugs):

Commonly used is Disulfiram (tetra ethylthiuram disulfide)

Other deterrent agents are,

- Citrated calcium Carbimide
- Metronidazole.

- Animal charcoal, Coprinusatramentarius(a fungus), certain Cephalosporins and sulfonylureas produce disulfiram like reactions

5. **Anti-craving agents:**
   - Acamprosate
   - Naltrexone
   - SSRIs(Fluoxetine)

6. **Other Medications:**
   - Benzodiazepines
   - Antidepressants
   - Antipsychotics

7. **Psychosocial rehabilitation:**

Yoga, Meditation and other recreational activities are carried out in the Deaddiction centre daily.

QUALITY OF LIFE Measures

Definition of Quality of life as per WHO (1996) is

'An individual's perception of their position in life, and in the context of culture and the value systems in which they live, and also in relation to their goals, expectations, standards, and concerns.'

Key benefits on the quality of life are[18],

1. For resource allotment prioritization
2. To assess the clinical trial outcome
3. For patient centered clinical care planning
4. To assess the health care research

Among the studies about the alcohol dependents, several studies reported the prevalence and risk factors, but only very few studies measured the Quality of life.[19]

Quality of life is the most valuable way to measure the personal and social context of subjects, but it is complex and assessment and interpretation is difficult

Score of the quality of life can be used as a valid denominator for

1. Assessing impact of treatment and comparing treatment modalities.
2. Give valuable clues to programme managers for planning better Treatment plan

Quality of life assessment is used frequently for alcohol dependents because, alcohol addiction affects physical, mental, and social well-being of individuals (albecht& fitzpatrik, 1994)[20].

Quality of life gives us subjective perspectives of alcohol dependent's impairments in their lives in varies dimensions.

As per study of Maeyer et al.,2010, Quality of life is the very important study stool to evaluate the treatment outcome of the alcohol dependents.[21]

OBJECTIVES

- To determine the change in QoL level of alcohol dependent patients prospectively over a period of three months follow up.
- Study the factors associated with the outcome(QoL)

JUSTIFICATION

Alcohol consumption is continuously increasing in our country and the percentage of alcohol dependents also constantly increasing.

Nowadays, alcohol dependency is a very big social and personal threat in many societies [22] .

Five-year Change in alcohol Consumption:

One of the most prevalent tendencies worldwide is found to be an increase in per capita alcohol intake. This trend is mainly attributed to an increase in alcohol Consumption in China and India. This trend can be potentially linked to active marketing by the beverage industry and constantly increasing income in these countries. The five-year trend in the WHO African Regions, WHO European Regions and, particularly the WHO Region of the America is found to be mainly stable. Some of the countries in the WHO European Region and the WHO African Region reported significant decreases in consumption[23].

- QoL in alcohol dependents is affected significantly, but studies regarding this are very minimal.
- Patient-reported outcome measures such as QoL may be useful in orientating choice between different therapeutic options.
- In public health point of view, Assessment of QoL is important to evaluate the effectiveness of existing programs.

Because of major portion of the Alcohol dependents belong Upper lower and lower middle class, their problem affects severely their health, family's economy and quality of life

Several private De-addiction centers in and around Chennai run commercially charge more fees which cannot be offered by the patients.

Two De-addiction centers run by Corporation of Chennai for the past five years focus mainly on these category of people

Hence the study and evaluation of the treatment outcome and QoL of Alcohol dependents taking treatment in Govt de-addiction centre is very much useful in planning about the therapeutic facilities in this centre in future.

REVIEW OF LITERATURE

Very essential part of research is review of literature. The important role of literature review is to reveal what research has been done so far regarding the problem of interest and helps us to plan a wide conceptual framework that a problem of research is able to fit. (Polit and Hungler 1995) [24].

Literature is organized and presented regarding Alcohol dependence, quality of life and Alcohol dependence syndrome with de-addiction centre.

WHO's Fact sheet on alcohol misuse:

(Updated January 2015)

Alcohol is a commonly used psychoactive drug causing dependence. This has been regularly used over several centuries across the world. Alcohol dependency creates severe disease, financial and social load to the societies.

As per global health report by WHO 2012, there was marked sex differences in global deaths contributed by alcohol, i.e. 4.0% of females and 7.6% males died due to alcohol

Amount, duration, pattern and quality of alcohol intake affect the population and societies in several aspects.

Alcohol abuse causes violence inside the family, violence outside the family, quarrel with friends, colleagues and working places.

Harmful drinking has a causal relationship with a range of physical and mental disorders.

Diseases like liver cirrhosis, some other cancers and cardiac diseases.

Psychiatric and behavioral problems.

Injuries due to violence, self-mutilation and road traffic accidents.

Alcohol related injuries more common in younger alcohol drinkers.

Alcohol drinking antenatal mothers may give complications of pre-term births and fetal alcohol syndrome.

Latest studies indicated the association of alcohol misuse with infectious diseases incidence like TB,HIV/AIDS ect.

One of the most important causes of liver cancer is heavy drinking. About 3 percent of all cancer deaths is contributed by alcohol consumption. Recent studies have suggested that cancer rectum may be associated to beer consumption but yet to be confirmed[25].

ALCOHOL DEPENDENCE AND AGE

According to a study done on prevalence of alcohol dependence in Nepal, the prevalence increases with age, peaking at the age group of 45 to 54 years.

People who start drinking alcohol before the age of 14 yrs are five times more likely to eventually become alcohol dependent than those who start drinking after the age of 21.The alcohol dependence occurs in young age and more number of episodes is found in them[26].

As age increase the rate of co-morbidity with physical and psychiatric illness increased. According to a study conducted on Korean older men, positive association was found with alcohol dependence and age[27].

Age is found to have some influence on the drinking pattern and development of alcohol dependence.

ALCOHOL DEPENDENCE AND RELIGION:

Religion is considered to play an important role in influencing the drinking pattern of the general population. Every religion has different view, opinion about alcohol intake. Islam strictly prohibit alcohol intake whereas Christianity have more liberal view and Hinduism has an intermediate view. This was reinforced by a study performed by Subir

Kumar, which showed that prevalence was greatest for Christians whereas lowest for Muslims[28]

According to Verma et;al.[29], a study conducted in Delhi showed that Sikhs were over represented with alcoholism whereas according to Khanet ;al.[30], Christians showed greater proportion of alcohol intake.

ALCOHOL DEPENDENCE AND GENETICS:

Genetics contribute to 60% of alcohol dependence i.e., when close family members drink the risk increases four fold. Identical twins have greater risk when compared with non-identical twin proving the genetic basis of alcohol When a child of alcoholic parents is brought up in non-alcoholic environment the risk of alcohol dependence increases four times[31]

ALCOHOL DEPENDENCE AND MARITAL STATUS:

GABRAZ gene and marital status are known to contribute independently in the development of alcohol dependence. They act complexly to increase the intake of alcohol and alcohol dependence[32]

Marital discordance and unmarried status are social processes that increase the vulnerability for alcohol dependence[33].

ALCOHOL DEPENDENCE AND CHRONIC ILLNESS:

Chronic medical conditions a like (diabetes, asthma, migraine, chronic pain, insomnia) predispose the elderly to alcohol dependence. Patients who develop late onset drinking problems, who relapse after early drinking problems are due to self medicated attempts to alleviate the painful / uncomfortable symptoms associated with chronic medical conditions of elderly. Chronic pain / insomnia are more frequently associated with alcohol dependence[34].

ALCOHOL DEPENDENCE AND SMOKING:

A study was conducted to find the co-occurrence of smoking and alcohol in Delhi. The finding of the study was that smoking was associated with alcohol. Smoking is the powerful predictor of alcohol usage. Hence for treating a alcohol dependence cessation of smoking is the first step[35].

The usage of alcohol during the study was higher in smokers then in non-smokers (OR=5.77, 95% C.I: 4.3 - 7.1)

ALCOHOL DEPENDENCEAND DRUG ABUSE:

In a study conducted in UK prisons 66% of a drug dependence inmates were dependent for alcohol also, whereas in USA the dependence

was 42% for both alcohol and drug. From the study it was found that alcohol was a most frequent substance abuse.

Even in the presence of other dependence they were the most common dependence found showing that some association exists between alcohol dependence and drug usage [36].

ALCOHOL DEPENDENCE AND PEER GROUP PRESSURE:

When peers drink, due to the desire to belong to them there is increased pressure to drink. However only peer group pressure is an incomplete explanation for adolescent alcohol use[37].

Increased alcohol use in adolescent age group leads to increased violent behaviour, anti-social tendency, falling tolerance level and rising anger leading to urban rage. Desire to be popular among peers, conforming to certain norms easy availability of alcohol makes an individual vulnerable to alcohol usage[38].

ALCOHOL DEPENDENCE AND PSYCHIATRIC ILLNESS:

The co-occurrence of alcohol dependence and psychiatric illness is very common. Nearly 50% of alcohol dependent has concurrent psychiatric affection. A total of 105 alcohol dependent individuals were examined for psychiatric co-existing disease and gambling axis I disease

was the most common found in 74% followed by depression, social phobia and stress disorders[39].

Overlap of genes responsible for alcohol dependence and psychiatric illness maybe the explanation for increased association between them.

Sometimes the symptoms of psychiatric illness maybe reduced with alcohol intake. This may be another reason for increased association[40].

Alcohol dependence is increased in individuals with history of conduct disorder and major depression [41].

In a study conducted on 20191 population of the age group > 15 years of age from 1980-1984 the following finding were found.

Mood disorder among alcohol dependence showed an OR = 6.9

Depression was found in 27.9%of the population i.e. it was increased 3.9 fold. Anxiety was found in 39.6%of the population. i.e.

11.6% - Generalized Anxiety disorder

3.9% - Panic attack

7.7% - Post traumatic stress disorder

Both GAD and PTSD showed significant difference between alcohol dependent individual and non-alcoholic. The lifetime risk of schizophrenia was increased to 14% i.e. 3.8 fold[42].

ALCOHOL DEPENDENCE AND HIGH RISK BEHAVIOUR:

Many studies had found the linkage between alcohol dependence and high risk behaviour. However only a few studies have showed the direct linkage between them [43].

Absence of vice during Shravana (Hindu) and Ramadan (Muslim) had decreased the intake of alcohol and high risk behaviour showing that they have direct/ indirect relation[44].

The reasons for strong association between alcohol dependence and high risk behaviour are :

- Difficult to engage in oral sex without alcohol
- Commercial sex workers (CSW) demand alcohol for them
- Belief that one visit an CSW only after consuming alcohol[45].

The reason for associated between alcohol dependence and high risk behaviour maybe the sensation seeking personality among alcohol dependence[46].

Even though there is association, such association is complex and multiple variables interplay[47].

Generally population classified as heavy drinkers are more likely to indulge in sexual act outside marriage, have multiple sex partners and get involved in sex trading.

ALCOHOL DEPENDENCE AND OCCUPATION :

Occupation like journalist, postal workers, police, sailors, bartenders, restaurant workers and painter have higher rates of alcohol dependence then other workers. According to a study conducted by Detroit et.al. The alcohol dependence was found in blue collared occupations like craft workers, labourers, service workers, machine operators and white collared occupation like managers among women and sales worker among men[48].

ALCOHOL DEPENDENCE AND EDUCATION:

Alcohol dependence was generally believed to be found in individuals with lower level of education. This belief was supported by the WHO report[49].

According to a study conducted in Nepal alcohol dependence was more common among population with lower level of education. The study showed that alcohol dependence was associated with education.

ALCOHOL DEPENDENCE AND INCOME:

It was believed that alcohol and alcohol dependence is higher among individuals of below the poverty line. This myth was found to be true by the studies conducted to find the association between alcohol dependence and income[50].

According to a study conducted in USA household income was positively associated with alcohol dependence i.e.,

- $ 20,000 - $ 35,000 OR= 1.4 $p < 0.0001$
- $ 35,000 - $ 69,999 OR = 1.6 $p < 0.0001$
- $ 70,000 OR = 3.2 $p < 0.0001$

When the individual is insured the prevalence of alcohol dependence increased[51].

Alcohol dependence and Disability-adjusted life-years (DALYs):

Three of the top 15 diseases responsible for disability-adjusted life years are mental health disorders in Europe:

Unipolar depressive disorders are the third cause of DALYs (3.8% of all DALYs);

Alcohol use disorders are the sixth leading cause of DALYs (2.9% of all DALYs);

Alzheimer's disease and other dementia are the 15th leading cause of DALYs (1.9% of all DALYs)[52].

Years lived with disability (YLDs)

Mental disorders are by far the largest contributor to the chronic conditions affecting the population of Europe. According to the latest available data (2012), neuropsychiatric disorders ranks as the first cause of years lived with disability (YLD) in Europe, accounting up to 36.1% of those attributable to all causes.

Unipolar depressive disorder alone led to 11% of all YLD, making it the leading chronic condition in Europe.

Alcohol related disorders rank third in Europe, accounting for 6.4% of all YLD.

Anxiety disorders rank sixth, accounting for 4% of all YLD.

Alzheimer's disease and other dementias rank ninth, accounting for 3% of the total.

Migraines rank 11th with 2.7%, schizophrenia ranks 15th with 1.8% and bipolar disorder ranks 17th with 1.6% of the total[53].

About 5.1 % of the worldwide burden of diseases and injuries is contributed by consequences of harmful use of alcohol, as assessed in disability- adjusted life years (DALYs).3

Deaths due to alcohol abuse relatively common in younger age group.25%of all alcohol related deaths contributed by the age group of 20-39 years[54].

Factors impacting intake of alcohol and alcohol-related harm various factors influencing the amount and pattern of alcohol drinking like.

Environmental factors, Financial factors, Cultural factors and Alcohol availability.

Analyzing these factors will give useful information to plan implementation and enforcement policies comprehensively to reduce the alcoholics prevalence

Alcohol taking pattern worldwide changing constantly. so the health policies should be designed to concentrate to decrease the intake of alcohol contents among the population. This is the most important work of the health care providers. Drinking practices varies in various region of the country. Southern peoples's drinking pattern entirely differed from northern people's practices. People belonging to different castes having

different drinking patterns living in the same region. Ethnic and cultural factors also play a role in deciding the drinking pattern of the people. So the existing definitions for alcohol dependence and alcohol abuse cannot be applied to all cultures and countries. So the health care providers, researchers and health policy makers before planning the prevention and management strategies should give priorities to the attitudes and expectations of people regarding drinking and its consequences[55].

Alcoholic misuse is one of the most important public health issues in rural areas of Tamilnadu. Amount and duration of consumption is high in adult males. Intensive health education and good management strategies will bring down the high prevalence of alcohol dependence[56].

Most of the alcohol dependence syndrome patients do not have motivation for seeking treatment. Hence they need door delivery of treatment facilities. Health care providers should plan for comprehensive management package having detection and management of alcohol dependence, detection and management of other health problems and correcting the social problems leading to the misuse of alcohol[57].

Measurement of Quality of Life

Da Silva Lima et al.done a pilot study[58] that study shows that the validity of the WHO QoL (BREF version) as an assessment instrument for alcohol dependent's Quality of life.

Some other scales frequently used to study Quality of life are:

1. WHOQOL100 Questionnaire[59]:

The WHOQOL-100 does allow detailed assessment of each and every individual facet relating to the quality of life.

In certain instances it was found, the WHOQOL-100 questionnaire may be too lengthy for practical usage.

2. SF-36 Questionnaire[60]:

SF-36 scales measure physical and mental components of health.

Physical components are,

1. Rolephysical
2. Physical function
3. General health
4. Bodily pain

Mental components are,

1. Mental health
2. Role emotional
3. Social function
4. Vitality

3. SF-20scale:

It is a abbreviated version of SF-36 questionnaire.

4. AlQoL-9[61]:

This is the 9-item scale derived from theSF-36 scale which has good psychometric properties. It can be used to assess the Quality of Life in Alcohol dependent patients.

5. Euro Quality of life scale[62]:

This scale established in1987 by Euro QoL Research Foundation for describing and valuing health-related Quality of Life.

A study of Kalman D et ;al (2004) about quality of life in alcohol dependents with or without psychiatric problems in 127 and 308 participants showed that the Quality of life was significantly reduced in psychological and social functioning domains than the non-alcohol dependents[63].

Quality of life in alcoholic males and alcoholic females was studied by Peters J. et. al., (2003) and concluded that Quality of life in females worse in all parameters when compared to males[64].

Andersen NJ et al (2000) Studied the treatment plan with the use of alcohol to relieve psychological pain. The principle of the treatment is restoring the health and quality of life of subjects[65].

Polka K,(2001) done a study to evaluate the quality of life in professional soldiers having alcoholic misuse. Study results concluded that alcoholic dependent professional soldiers had decreased score in physical, social and psychological domains[66].

A study conducted by (Sheren 2006) revealed that alcoholic dependent patients needed different plans for effective case detection, intervention and management[67].

Morgan MY et al (2004) did a observational study about the outcome in alcohol dependence patients stated that dependent drinkers had significantly reduced health related quality of life[68].

Deshpande et al (2003).studied about the relationship between the alcohol dependence and self mutilation. Results explained that alcoholic patients are more vulnerable for self harm. They had severe life stressors like family, job related and financial stressors[69].

A study was done by (Suresh Kumar PK 2007).about family intervention therapy given to the alcohol dependents taking treatment at a de-addiction centre. Results did reveal that active family intervention therapy markedly reduced the amount and duration of drinking in alcohol dependence patients and brought out the better outcome[70].

ManjunathaNarayana (2008) analyzed about chronology of criteria in alcoholic dependents age and order wise chronology. The results were presented as analyzation of age wise chronology gives the better understanding about alcoholic course progression in alcoholic dependence patients[71].

Psychiatric illnesses like depression and anxiety with alcohol dependence syndrome patients, severity of the anxiety and depression more worse in patients with alcoholic addiction .and also affected significantly the quality of life. So planning to find out and treat the patients with psychiatric illness also very important aspect of the management[72].

AshutoshChauhan et ;al (2004) done a retrospective study in 100 alcohol dependents in a deaddiction centre, manipal to study about the psychiatric and physical impact of the harmful alcohol intake[73].

The study revealed that…

- Tobacco dependence syndrome -60%
- Acid peptic disease- 47%
- Alcohol liver disease- 39%
- Substance induced mood disorder -7%

- Independent mood disorder -4% and
- Others- 16%.

Another study was performed by Cohn Tj et ;al (2003) at a deaddiction centre in South London showed that sleep pattern of the subjects were severely disturbed by a specially designed questionnaire assessing quality of life and sleep[74].

Boyale M F et ;al studied alcoholic women's in rural areas on stress and coping revealed that they experienced more stressors, less uplifting and coping sources[75].

Foster JH et :al (2002)A study by using Euro Quality of life scale and Nottingham health profile sleep sub scale in alcohol dependents with moderate dependence in South London have shown very poor health related quality of life in them compared to the Quality of life of the general population[76].

In a study of Brower KJ (2001) ,noted that alcoholics having severe sleep problem than the nonalcoholics. Alcoholics are more prone to sleep apnoea like disorders[77].

Marshall EJ et ;al (2000) assessed the Quality of life between alcohol dependent cancer patients and non-alcoholic cancer patients. Physical and psychological domain scores markedly decreased in

alcoholic patients while comparing Quality of life in non-alcoholic cancer patients[78].

A follow up study was done by Rudolf H et ;al (1999) of alcoholic women in detoxification showed that who differ in subjective perception of Quality of life tend to relapse[79].

Romeis J.C et ;al (1999) studied the health related Quality of life in alcoholic and non-alcoholic twins. the research was done in 1,258 male twins in Vietnam showed that alcoholic twins had very lower mean score of Quality of life than non-alcoholics[80].

Vanshree et ;al (2003)found that 75% alcoholic dependents having psychiatric co-morbidity, frequent quarrels and absenteeism at working station in their study[81].

Another study was done by G.S Palaksha (2003) to measure the alcohol induced depression. The alcohol dependents were grouped age wise, duration and amount of alcohol consumed, 33 of 127 participants having depression[82].

Prof. L.S.Manickam, et al [83] studied the relationship of post traumatic stress and alcohol dependence showed that

- Prevalence of alcohol dependence - 52.8%
- Current users -74.6%

GENDER DIFFERENCES:

As per WHO 2010 data, Worldwide per capita alcohol intake

- Males-21.2 litres
- Females-8.9 litres

Alcohol related deaths in men contributed to 7.6 % of all global deaths and 4.0% of all worldwide deaths in women[16].

Tactics recommended by WHO to decrease the load from harmful alcohol intake

All the risk factors in various aspects like familial, financial, social and health to be addressed. Actions need change the context and pattern of intake of alcohol.

All the countries in the world should have effective action plans to formulate, implement, monitor and evaluate of their public policies to decrease the harmful alcohol intake. Policies should be designed based on the scientific background knowledge for cost effective implementation of the policies.

- Alcoholic beverages market should be regulated. (particularly age wise regulation)
- Availability of alcohol should be restricted and regulated;

- Strong enforcement of drink-driving policies;
- High taxation and pricing to the beverages can reduce the demand;
- Intensive public health education to increases the awareness and to support to implement the policies.
- Governments should design the policies to affordable and accessible health care facilities for alcohol abuse patients and
- Screening and management programmes for hazardous intake of alcohol should be started in health services.

Responses of WHO:

Main aim of WHO is to decrease the health burden caused by alcohol abuse and ensures the societies and individuals health and well-being

WHO concentrates on formulate, implementing, monitoring and evaluation of the cost effective treatment performed for harmful alcohol users. It also tries to disseminate the created and compiled scientific knowledge about the social and health consequences of alcohol misuse.

World health assembly gave approval for the global strategy to work towards reducing the harmful intake of alcohol in2010. In this

resolution, WHO emphasized all the countries to give more importance to alcohol related health problems.

Components of global strategy to reduce alcohol burden:

- Enforcement of evidence based interventions and policies
- Guiding principles to develop and implement of policies
- Fixes priority aspects for global action

WHO recommends countries to choose target areas for action.

The Global Information System on Alcohol and Health (GISAH):

WHO developed The Global Information System on Alcohol and Health (GISAH) to compile the data of alcohol intake, alcohol related health and social problems, responses of policy implementations. It's an important tool to assess and monitor the alcohol related health situation.

This system is very much useful in designing policies and strategies collaborating with its member countries to decrease alcohol impact worldwide[84].

MATERIALS AND METHODS

STUDY DESIGN: Cohort Study

Cohort of patients - alcohol dependents attending De-addiction centre, Chennai are followed up for three months and the outcome variable Quality of Life is measured. Exposure factor studied is 'therapy at the de addiction center'. Comparison is done with historical control of Quality of Life at baseline among the patients.

STUDY CENTRE:

Government De-addiction Centre, Communicable Diseases Hospital, Tondiarpet, Chennai.

STUDY PERIOD:

March 2015 to July 2015

TARGET POPULATION:

Alcoholics in Chennai

STUDY POPULATION:

Alcohol dependents taking treatment in the Deaddiction centre at Communicable Diseases Hospital, Tondiarpet, Chennai.

INCLUSION CRITERIA:

- Only males attending Deaddiction centre
- Informed consent
- Subjects able to communicate

EXCLUSION CRITERIA

- Females
- Patients with withdrawal symptoms
- Seriously ill patients

SAMPLE SIZE:

The sample size was calculated at 30 based on mean QoL score of 21.45 and (±SD) is 5.16 [22] ,Formula used to calculate the sample size is

$$N=\frac{(Z_{\alpha/2})(\sigma)^2}{E^2}$$

Alpha error is 5%

Desired accuracy(E) 10%

10% for Non responders.

SAMPLING MEHOD:

Chennai Corporation is now running two Deaddiction centers in Chennai. First one was started at Royapettiah in 2010.Second one was started in March 27,2014 at Communicable disease hospital,Tondiarpet. It is also planning to start more than 15 De-addiction centers across Chennai in near future. Of the above two De-addiction centers, CDH, Tondairpet was chosen randomly. All the patients admitted for treatment from March 2015 were included in the study till the sample size was reached.

Subjects:

30 patients were continuously selected who satisfied the selection criteria.

The patients get admitted from various zones of Chennai, but Northern Chennai is the main catchment area.

OPERATIONAL DEFINITIONS:

ALCOHOL DEPENDENCE:

A cluster of behavioral, cognitive, physiological phenomenon that develops after repeated alcohol use and typically include a strong desire to take the drug , difficulties in controlling its use a higher priority given

to alcohol use than to other act / obligations , increased tolerance and at times a physical withdrawal state.

ALCOHOL ABUSE:

A maladaptive pattern of alcohol use manifested by recurrent and significant adverse effect related to repeated use of alcohol. These problems must occur recurrently during the preceding 12 months. Generally the diagnosis is made in an individual's when the criteria for dependence has not been met.

ALCOHOL WITHDRAWAL:

- Minor withdrawal (5-10 hours)
  - Autonomic hyperactivity: Tachycardia, tremulousness, hypertension, hyperhydrosis, GI upset;
  - Insomnia, anxiety, and vivid dreams
- Major Withdrawal (12-72 hours)
  - Seizures(generalized tonic-clonic seizures) – 10%
  - Hallucinations (visual, tactile) – 10-25%
- Delirium tremens (48-72 hours) – 5%
  - Life threatening state – medical emergency.
  - Disordered consciousness

EX-SMOKER:

Those individuals, who had previously smoked but had abstained from smoking for the past 12 months.

NON-SMOKER:

Those individuals, who had never smoked are known as non-smokers.

SMOKING DURATION:

Assessed in years.

DRUG:

Drug is defined as a substance that when it is taken into the living organism, may modify one or more of its function. In our study, history of psychoactive drug intake is recorded.

PSYCHOACTIVE DRUG:

Any drug capable of altering the mental function is known as psychoactive drug

STANDARD DRINK:

The standard drink in U.S.A is 9 to 13 grams of absolute alcohol whereas its equivalent considered for the study is as follows [85]

- 1/3 of regular standard beer bottle
- 90 ml of wine
- 60 ml of arrack
- 30 ml of Indian made foreign liquor
- 200 ml of toddy

In our state, people usually mention their drinking amount as,

1. Cutting-90ml
2. Quarter-180ml
3. Half-360ml
4. Three fourth-540ml
5. Full-720ml

UN-SKILLED OCCUPATION:

Work that does not require special training or skill is known as un-skilled work eg , construction workers, porters, farm workers.

SEMI-SKILLED:

Work that required some special training or qualification but lesser that of skilled work is known as semi-skilled work.eg driver, mason, machine operators.

SKILLED:

Work that requires special training or skill is known as skilled worker. eg, electrician, plumber, mechanic.

ILLITERATE:

Any individual of >7 years of age, who cannot read and write is considered as an illiterate

URBAN RESIDENCE:

Towns (places with municipal corporation, municipal area committee, town committee, notified area committe or contonment board), places having 5000 or more inhabitants, densuty not less than 1000 persons per square mile or 390 per square kilometer and atleast three fourth of adult male employed otherthan agriculture'[86].

URBAN SLUM RESIDENCE:

A Slum, for the purpose of Census, has been defined as residential areas where dwellings are unfit for human habitation by reasons of

dilapidation, overcrowding, faulty arrangements and design of such buildings, narrowness or faulty arrangement of street, lack of ventilation, light, or sanitation facilities or any combination of these factors which are detrimental to the safety and health[87]. Residence which was enlisted as slum in Census data were categorized as 'Urban Slum'

STUDY INSTRUMENTS:

1. **Socio-demographic, General health and Alcohol profile (annexure - 1):**

Basic demographic characteristics like Education, Occupation, Socio economic class classified based on the Modified Kuppusamy's scale. Place of Residence categorized as urban and urban slum areas as per operating definitions and list of designated slum areas from the Chennai corporation.

Personal characteristics like Religion, Order of birth, marital status-whether they are married or not and whether living with spouse or not, living arrangement as living with family or not, who was the prime motivator and presence of self motivation were interviewed.

Regarding pattern of Alcohol drinking, patients were asked about.

1. Type of alcohol like Beer, whisky, Rum, Gin, arrack, etc. The alcoholic content of beer is 5 to 6 per cent, and others (Whisky, Rum, Gin and brandy) contain40 to 45 per cent[88].

2. Quantity: In our state people usually mention the drinking amount as Cutting (90ml), Quarter (180ml), Half (360ml) and Full(720ml) .one beer is 650ml.

3. Age at first drinking and duration of drinking assessed in years.

Variables related to consequences of Alcohol dependence were also studied as percentage of income spent on alcohol, H/o family violence and violence with outsiders, drunken driving and alcohol related accidents.

Past history of treatment, type of treatment, and attempts to quit were the questions about management aspect of alcohol dependence.

Other risk factors like Age at starting to work, Use of alcohol by family members and deaths due to alcoholism in the family, degree of relationship and details about the other substance use were interviewed in detail.

2. General health profile.

Details of general health were collected categorizing problems into groups

- Tremors, insomnia, fits, nausea and aches pains grouped as physical symptoms.
- Haematemesis, jaundice, bleeding piles, neuritis and skin problems are grouped as medical problems
- Psychiatric symptoms comprise depression, aggressive out bursts, Hallucinations, paranoid ideas, Suicidal ideation/attempts and deliberate selfharm.
- Chronic health problems categorized into four major groups as

    1. Cardio vascular system (HBP/IHD/RHD)
    2. Respiratory system (TB/chronic bronchitis/Bronchial asthma)
    3. Gastro-intestinal system (Gastritis/Ulcers)
    4. Central nervous system (epilepsy)

If any one symptom/sign present, in a group it was considered as ‘yes’

3. SADD Questionnaire[89]. (annexure 2):

SADD questionnaire scale was used for assessing the severity of the dependence. Score for the responses calculated as

- Never=0,
- Sometimes=1,
- Often=2 and
- Nearly always=3.

Score 1-9 = indicates low dependence

Score10-19=medium dependence

20 and more=high dependence.

4. WHO QoL-BREF26 Questionnaire
(English and Tamil Annexure 3 & 4):

And Tamil version of the WHO QoL-BREF-26 questionnaire was used to collect data on Quality of life of the participant from his perspective.

WHO BREF-26 questioner as 26 questions in 4 domains (physical health, psychological health, environmental and social function).

4 domains are covered by 24 items and overall health is covered by 2 items[90].

1. Physical domain describes about 3 categories

- Pain & discomfort
- Energy and fatigue
- Sleep &rest

2. Psychological domain contains

- Positive feelings
- Negative feelings
- Learning and concentration
- Body image
- Self-esteem

3. Social domain includes

- Personal relationship
- Practical social support
- Sexual activity

4. Environmental domain deals with

- Financial resources

- Healthcare availability
- Opportunities for acquiring new information and skills
- Opportunities for leisure
- Opportunities for transport.

Two items are examined separately:

Question 1 – deals with overall perception of quality of life of an individual.

Question 2 – deals with perception of an individual about their health.

Each question has 5 responses.

Each question is validated by Likert 5 point scale.

Likert scale[91]:

"A simple and Reliable method for scoring the Thurstone Attitude Scales".

- Likert scale is a type of psychometric scale used to scale the responses in research survey questionnaire.

  It is a one-dimensional, non-comparative scale.

  Five-level Likert scale has the following items

1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

- Response for each and every question may vary from1(strongly disagree) to 5(strongly agree)
- A summated rating scale is considered to be a set of attitude statements all of which that subjects respond with certain degrees of agreement or disagreement carrying different scores. Based on the response, these scores are a) summed or b) summed up and averaged to yield a final value of individual's attitude score. The objective is to ensure to avoid the use of a single statement to represent a concept. Instead we use several statement as per indicators, all of which represents different facets of the concept with the intent of obtaining a more well-rounded perspective.
- Better Quality of life is indicated by the high score.

Advantages of Likert scale:

- No outside group of judges should be involved in selecting statements and giving values/scores to them.
- Item analysis increases the degree of internal consistency or homogeneity in the set of statements.
- In general, subject's finds it easy to respond to questions because they have a wide range of answers (usually up to five) to choose from instead of typical two alternative responses, i.e., agree or to disagree.

Limitations of Likert scale:

- Ties in ranks occur quite frequently on this approach.
- The response pattern of an individual being assessed is not revealed.
- A respondent is required to perform answering of all questions on the scale.
- A problem of interpretation could arises with this type of scale.
- In this approach, all statements of a universe are considered to be of equal attitude value.

5. Therapy at De addiction Center, Tondiarpet:

This deaddiction centre is a part of the Communicable Diseases Hospital, Tondiarpet. It has both male and female wards and each ward having the capacity of 30 beds.(Due to social stigma and lack of awareness only four females so far were admitted here for treatment since the centre has been opened)

In this centre, a team of experts like dedicated psychiatrist, staff nurses, counselor, yoga therapist and alcohol anonymous group provide excellent services.

Here the admitted patients were managed with the standard treatment protocol.

Duration of the treatment period will be divided into two parts. In first 21 days of the treatment period, patients would be hospitalized and take treatment as inpatients. The second part is the followup period for one year .In this followup period, patients should visit once in ten days with family members to get medicines and counseling in various aspects.

Apart from the medical management, all the patients have been trained with meditation and yoga exercises daily in the morning hours.

Alcohol anonymous group arrange interaction meetings with alcohol dependents on Sundays, which gives the much needed psychological support to the patients.

The center has a very good follow up mechanism. A team of counselor and members of the alcohol anonymous group trace out the defaulters and bring them back to the treatment. So the success rate of treatment is high in this center.

All these services are provided free of cost.

DATA COLLECTION:

After getting the official permission from the Commissioner, city health officer of the Corporation of Chennai and The Director of the Communicable Diseases Hospital, Tondiarpet, the investigator regularly attended the centre in forenoon and interviewed the eligible participants till the sample size was achieved.

The Psychiatrist in-charge of the Deaddiction Centre recruited the patients based on ICD-10criteria.

The study population were explained about the study, confidentiality, their rights to participate , not to participate ,or quit from the study during the period of the study and got the informed consent from all the participants.

During the interview strict privacy, confidentiality and empathy were maintained.

All subjects were given clearly designed structured questionnaire on socio-demographic, general health and Alcoholism profile. The SADD Questionnaire was used to assess severity of alcohol dependence. Tamil version of the WHO QoL-BREF-26 questionnaire was used to collect data on Quality of life of the participants from their perspective; both at the baseline before initiation of treatment after detoxification and after 3 months follow up.

ANALYSIS:

The collected data was analysed using Statistical Package for Social Science (SPSS) Version 20.(SPSS Inc. chicago, IL).

Basic socio-demographic variables, general health and alcohol related variables were analysed as independent variables one by one.

Variables associated with low QOL at baseline using Mann Whitney U and Kruskal Wallis test wherever applicable (Comparing median scores between two variables – Mann Whitney U test, >2 variables – Kruskall Wallis test)

Quality of life scores of all domains at baseline and after three months abstinence were analysed using paired 't'test.

RESULTS AND DISCUSSION

Eventhough the quality of life in alcohol dependents is the most important aspect to study, only very few studies have been done so far in our country regarding this aspect. Particularly in south India, we could not find any publications.

In most of the National and International studies, SF-36 quality of life questionnaire was commonly used to assess Quality of life. Only few studies have been done by using WHO BREF-26 questionnaire.

The QOL is the most valuable tool for the interventional management and plays the important role in designing the management programme. (WHO, 2002).

Our study was carried out in Govt. deaddiction centre, Communicable Diseases Hospital, Tondiarpet, Chennai.

We studied the Base line Quality of life of alcohol dependents, who got admitted here for treatment and after the three months prospective follow up and also studied about the factors associated with the outcome.

Out of 35 patients consequently selected from the patients admitted for treatment,5 patients were not interested to participate in the study. The response rate is 85.7%

The results are discussed regarding Basic socio-demographic characteristics, personal characteristics, alcohol related variables, medical and psychological variables.

QoL of study population are compared with mean score of healthy individuals in past studies and comparison of QoL at baseline and after three months.

Table 1: Socio demographic characteristics

Variables (N=30)	N(%)
Age	
<30	14(46.7)
31-40	11(36.7)
>40	5(16.7)
Education	
Illiterate	6(20)
Primary and literate	3(10)
Middle school	12(40)
High school	3(10)
Post high school & diploma	6(20)
Occupation	
Unemployed	3(10)
Unskilled	10(33)
Semiskilled	12(40)
Skilled worker	2(6)
Clerical work	3(10)
Socioeconomioc status	
Upper middle	1(3.3)
Lower middle	8(26.7)
Upper lower	21(70.0)
Living area	
Urban	20(66.6)
Urban slum	10(33.3)

Socio-demographic Characteristics:

Age: Almost half of the study participants (46.7%) were less than 30 years old.

Education:

Around 80% of the study population are literate, which is lower than the Tamil Nadu state's male literacy rate(86.77%)[92].More than two thirds (70%) of the participants had not crossed middle school education. Shruti srivastava et.al,[22] showed the same results.

Occupation:

Of the participants 10% of them are unemployed. Only 6% of the participants were skilled workers. Majority of the study population are semiskilled workers (40%) and unskilled workers(33.33%). There is no professional or semi-professional in the study population.

Socio economic status:

Study participants were divided into five classes based on Modified Kuppusamy scale [93], using the Consumer price index in March 2015[94]. No participants from the two extreme socio economic groups (upper and lower classes) were studied. The major portion of the participants (70%i.e 20participants) belonged to the lower class (the upper lower)

Living area:

Of the participants33.33% are coming from urban slums i.e living in severely compromised sanitary and environmental conditions.

Table 1a Personal characteristics

Personal Characteristics	N(%)
Order of birth	
First- Personal	10(33.3)
Middle	9(30)
Last	10(33.3)
Only child	1(3.3)
Personal Characteristics	N(%)
Marital status	
Single	10(33.3)
Married	16(53.3)
Separated	4(13.3)
Living arrangements	
Family	29(96.7)
Friends/Distant relatives	1(3.3)
Motivated by	
Wife	12(40)
Parents/Family members	11(36.7)
Relatives	6(20)
Friends	1(3.3)
Presence of Self-motivation	27(90)
Religion	
Hindu	21(70)
Christian	9(30)

Order of birth:

There was an almost equal distribution across the participants relating to birth order. Only one participant was a single child.

Marital status:

Almost half of them (46.6%) were either unmarried(33.3%) or separated (13.3%).The reason for separation in all the separated people is harmful alcohol drinking. majority were married in past studies (Shruti srivastava et.al,Om prakash giri.et.al,)

Living arrangements:

In total 30 sample population except only one person who is living in a very distant relative's house, all others are living in good family setup. Married people living as nuclear families or joint families. The unmarried and separated peoples are living with their parents or brothers. This results were similar with Om prakash giri.et.al[19].

Motivated by:

The main motivational role for convincing alcohol dependents for treatment is played by spouse (in 40% of cases). As anticipated very least motivation was driven by friends(3.33%) probably due to peers with the same habits.

Presence of self motivation:

Self motivation is the most important factor for the success of treatment. In this Deaddiction centre, self-motivation is considered as the main criteria to get admitted. Among the study population about 90% (27patients) are having good intention towards recovery from alcohol dependency.3 patients (10%) were not having self-motivation at the time of admission, They were given very effective counseling during the period of admission. Now they are regularly coming for follow up and taking medicines regularly.

Religion:

In study population,70% (21participants) are Hindus and 30%(9 participants) are Christians. This data is not matched with the Tamil Nadu religious data (Hindu=87.58%, Christians=6.2%) [95], Results were in concordance with Om prakash giri.et.al[19].

Table 2 Patterns of alcohol dependence

Variables (N=30)	N(%)
Years of drinking	
<5 years	4(13.3)
5-10 years	9(30)
11-15 years	6(20)
16-20 years	6(20)
>20 years	5(16.7)
Type of alcohol	
Brandy	22(73.3)
Anything	8(26.7)
Quantity	
180 ml	9(30)
360 ml	13(43.3)
540 ml	6(20)
720 ml	2(6.7)
Alcohol dependence	
Low	4(13.3)
Medium	14(46.7)
High	12(40)
Age of starting alcohol consumption	
<18 years	10(33.3)
>18 years	20(66.7)
Percentage of income spent on alcohol	
25-50%	21(70)
51-75%	6(20)

Years of drinking:

It was noted that 86.7% of the participants have been drinking for more than 5 years and a small proportion (16.6%) had been drinking for more than 20 years. About 13.33% (four out of thirty) of participants become addicted in short duration of use of alcohol (5 years)

Type of alcohol:

22 out of 30 participants (73.33%) had been using brandy only and other 8 participants drink any varieties. The exact reason for majority of people selecting brandy is unknown.

Quantity of Alcohol:

Majority (43.3%) of the participants had been regularly taking about 360ml/day. Only two persons had been drinking about 720ml/day.

Degree of Alcohol dependence:

Major portion of the participants of the study population are having medium level (46.67%) and high level of dependence (40%) as per the SADD questionnaire. Only 4 participants (13.33%) had low dependence

Age of starting Alcohol consumption:

It was disturbing to note 20 out of 30 participants (66.67%) started to drink before the age of 18 years.

Percentage of income spent on Alcohol:

70% of the study population had spent less than 50% of their income for drinking whereas 20 %(6 participants) of the study population spent up to 3/4th of the income for drinking. The missing 10% population refers to the unemployed persons

Table 2a.Consequences of alcohol dependence:

Variables (N=30)	N (%)
Physical symptoms	30(100)
Medical co-morbidities	22(73.3)
Psychiatric co-morbidities	25(83.3)
Chronic health problems CNS CVS GIT	17(56.7) 1(3.3) 4(13.3) 12(40)
History of family violence	22(73.3)
History of drunken driving	30(100)
History of violent behavior outside of home	9(30)
History of alcohol related accidents	10(33.3)

Physical symptoms and medical co-morbidities:

ALL the participants had at least one of physical symptoms like body pain, insomnia, nausea. Almost three fourth (73.33%) of the participants had some medical co-morbidities.

Psychiatric co-morbidities:

83.3% of the participants were affected by any one of the psychiatric co-morbidities like depression, aggressive out bursts, Hallucinations, paranoid ideas, Suicidal ideation/attempts and deliberate self-harm. It corroborates the fact that Psychiatric illnesses like depression and anxiety with alcohol dependence syndrome patients and severity of the anxiety and depression were worse in patients with alcoholic addiction [72].

Chronic health problem:

Among the participants having chronic health problems, majority of them i.e. 12 participants (70.59%) had GIT related problems like GERD and Peptic ulcers, followed by the patients with systemic hypertension.

History of family violence:

73.33% of the sample population had been practicing verbal abuse and physical violence on the family members especially wife and children.26.67% of the population did not have history of Family violence.

History of violent behavior outside the home:

According to our study majority of the alcohol dependents creating problems inside the family are behaving with control in the society with only 30% showing aggressive behaviour.

History of drunken drive:

All the participants had the experience of drunken drive.

History of alcohol related accidents:

Though all the participants had the experience of drunken driving, only 33.33% (10 participants) of them accepted that they had involved with the accidents.

Table 2b Management of alcohol dependence

Management of alcohol dependence (N=30)	N(%)
Past history of treatment	7(23.3)
Type of treatment Allopathy Alternate medicine	 5(71.4) 2(28.6)
Attempts to quit None Once Twice	 23(76.7) 5(16.7) 2(6.7)

Past history of treatment:

Although for (76.67%) participants this was the first attempt to come to the Deaddiction centre. five participants (16.67%) had made one attempt and two participants had even attempted twice earlier.

Type of treatment taken in the past:

In the 7 participants who took treatment for de addiction in the past, 5 of them took allopathy and 2 of them took alternative medicine like sidha, homeopathy, native medicines, etc..

Table 2c.Risk factor distribution

Risk factor distribution	N (%)
Age at starting work	
<14 years	20(66.7)
>14 years	8(26.7)
Use of alcohol by family members	16(53.3)
Family history of psychiatric illness	5(16.7)
Relationship of the affected family Member	5(16.7)
First degree	
Death due to alcohol in family	12(40)
Type of relationship	
First degree	12(40)
Other Substance abuse	26(86.7)
Type of substance abuse	
Tobacco	20(76.92)
Ganja	3(11.54)
Both	3(11.54)
Method of consumption	
Smoking	5(19.2)
Chewing	14(53.8)
Both	7(26.9)
Duration of substance use	
<5 years	10(33.3)
6-10 years	12(40.0)
>10 years	4(13.3)

Age at starting work:

Around 2/3rd of participants (66.7%) are started to work before the legal age to work [96] while 2 participants were students and unemployed.

Because of starting work at earlier age, early financial freedom probably play a major role for early starting of drinking.

Use of alcohol by family members:

In the study of drinking habits of the family members, we found almost half of the alcohol dependents (53.33%) having family members with harmful alcohol intake behavior.

Family history of psychiatric illness:

Patients with psychiatric illness present in 5 participants family (16.67%) They are commonly brothers, sisters and wives of the participants. They are affected by depression, schizophrenia and repeated suicidal attempts.

Alcohol related deaths in the family:

Loss of family members due to harmful alcohol intake occurred in 40% (12) of study population. Most commonly, the victim was the father of the participants.

Other substance use:

26 participants (86.7%) were using other substances like tobacco and cannabis.

Only 6 participants were using cannabis (3 using both)

Method of consumption:

In that 20 tobacco users, 14participants (46.7%) consumed chewable form of tobacco and 7 of them had the habit of both smoking and chewing.

Duration of substance use:

Among the 26 other substance users along with alcohol intake, 4 persons use it for duration more than ten years.

Table 3 QOL at baseline compared to healthy individuals:

Mean scores at baseline compared to healthy individuals from a previous study [19]

Domain	At baseline	Scores of Healthy individuals
Physical	17.73±3.6	23.95±3.40
Psychological	11.43±3.2	20.44±2.96
Social	6.19±1.5	10.6±2.13
Environmental	21.13±2.69	27.00±4.11

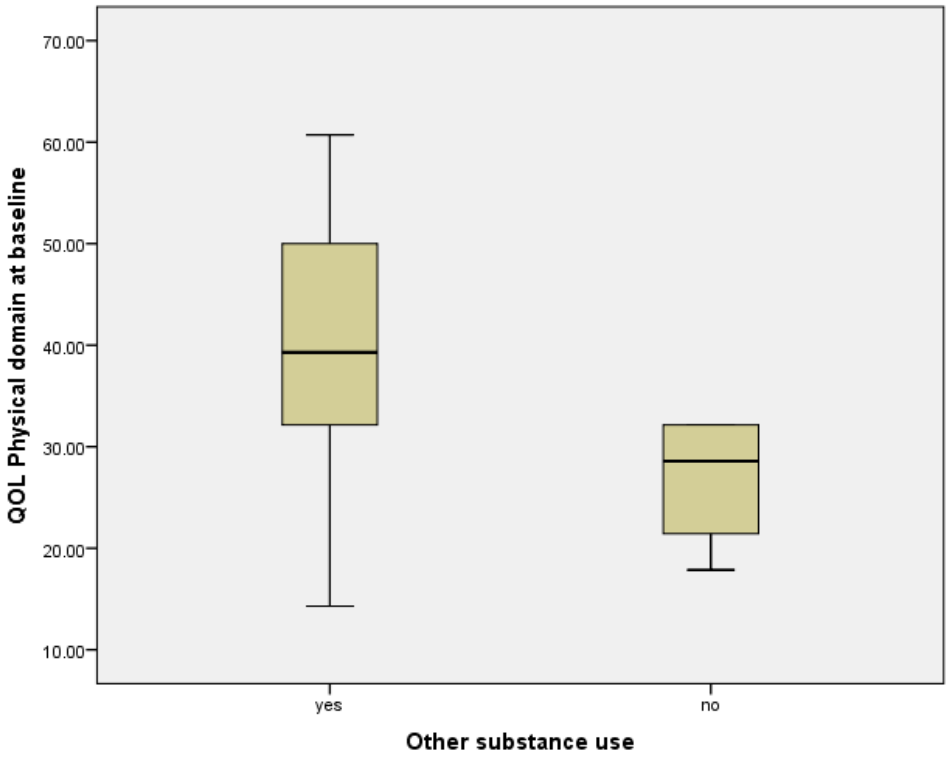
The mean baseline score of QoL of study subjects were compared to the mean scores of the healthy individuals shown in Table 3.Scores of

the all four domains of QoL are significantly reduced at the time of admission. The Shruti Srivastava et al [22],Donovan D et al [97], and Pal et al [98], studies also have shown the same results.

Factors associated with low QOL at baseline:

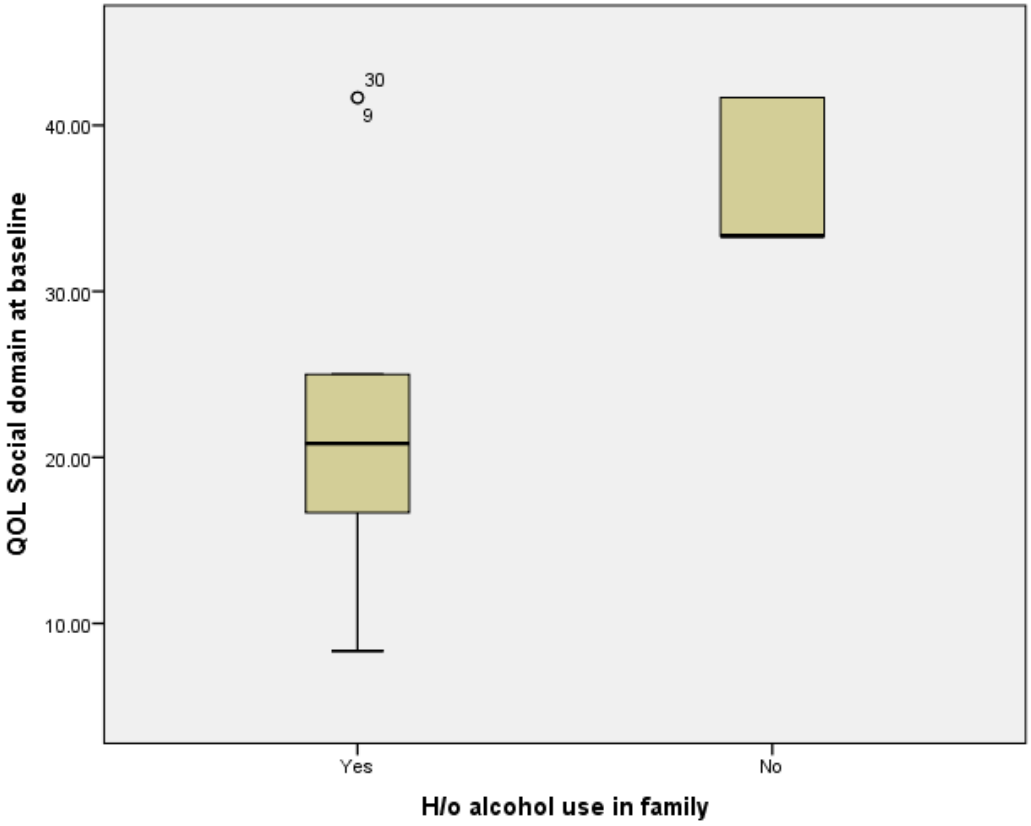
Except the variables like Substance abuse, Alcoholism in family members, Alcohol related deaths in the family and Percentage of income spent on alcohol, all other variables are not associated with low QoL.

Figure 1.Other substance use in Physical domain.



Median physical domain score of alcohol dependents with other substance use is higher than those without any other substance use P value = 0.038 (significant)

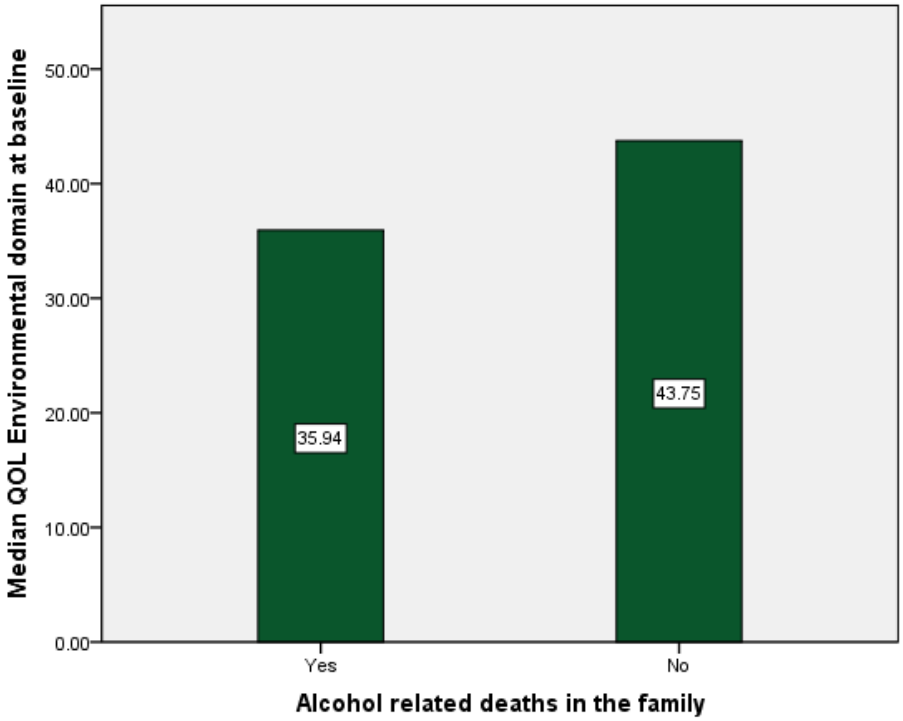
Figure 2. History of alcohol use in the family in social domain



History of alcohol use in the family is associated with a lower median score in the social domain of QOL

P value=0.005 (Highly significant)

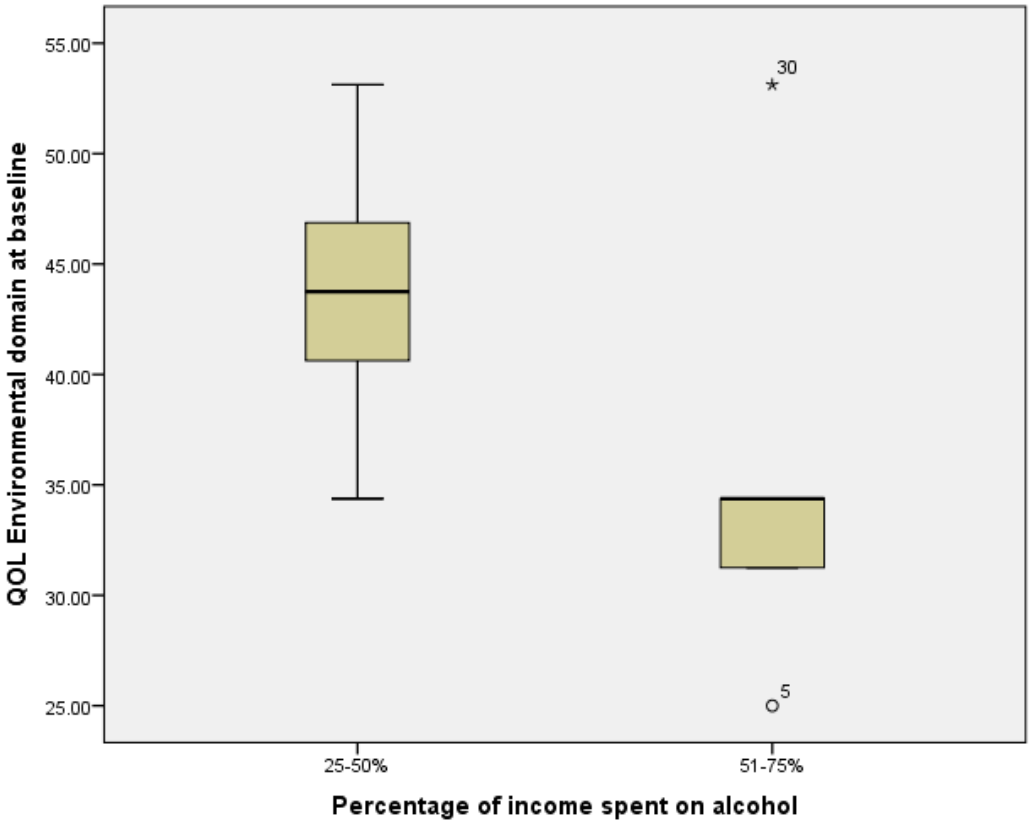
Figure 3. History of alcohol related deaths in the family in environmental domain:



H/o prior alcohol related deaths is associated with a lower median environmental domain score in QOL

P value =0.017 (Significant)

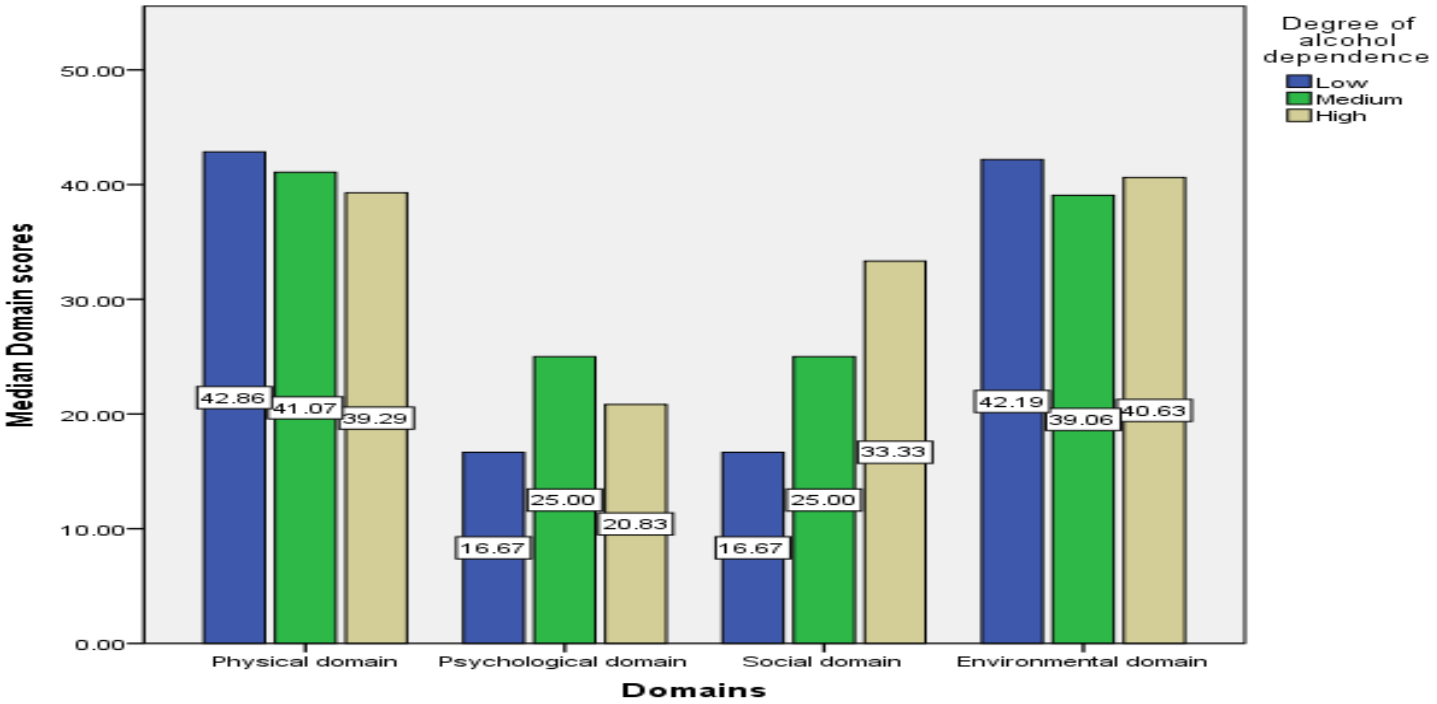
Figure 4. Percentage of income spent on alcohol in environmental domain



Spending >50 % of income on alcohol is associated with a lower median environmental domain score in QOL

P value =0.012 (Significant)

Figure 5 .Degree of alcohol dependence and low QOL scores at baseline and mean change in QOL domain scores



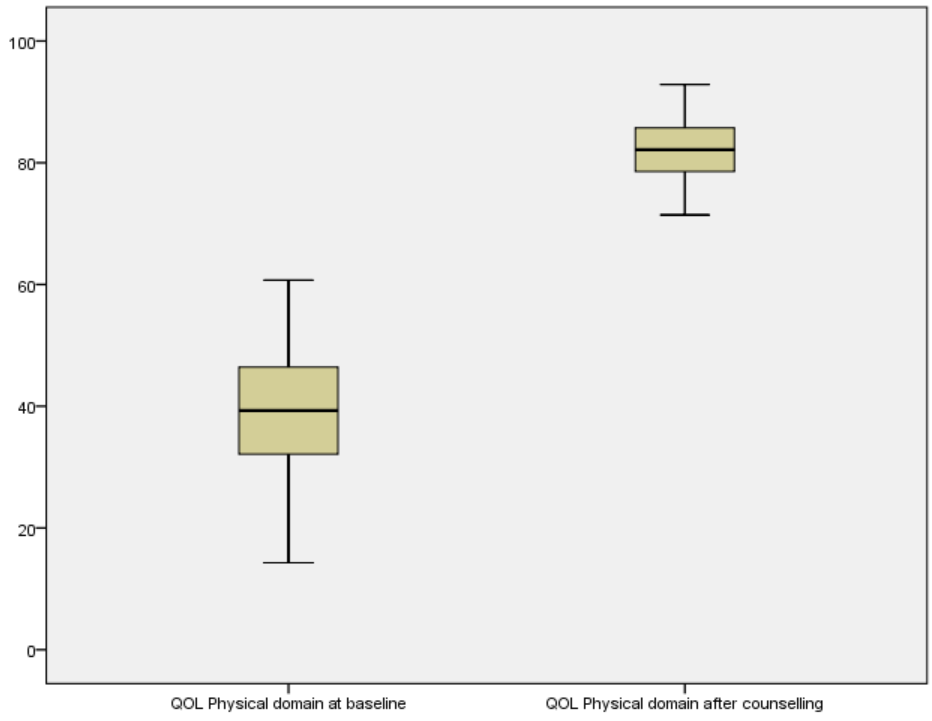
We have measured the severity of alcohol dependence by using SADDQ. There was no significant association between severity of alcohol dependence and scores of the all QoL domains.

ShrutiSrivastava et al [22] and Lahmek et al[99] assessed the severity by using SADQ and mentioned no marked changes in physical and mental domains of the QoL.

Comparison of QOL at baseline and after three months abstinence:

All four domains of QoL were significantly improved from the baseline values after the three months abstinence from alcohol and regular treatment followup. This was in concordance with many past studies [19,22,100,101,102,103,104.]

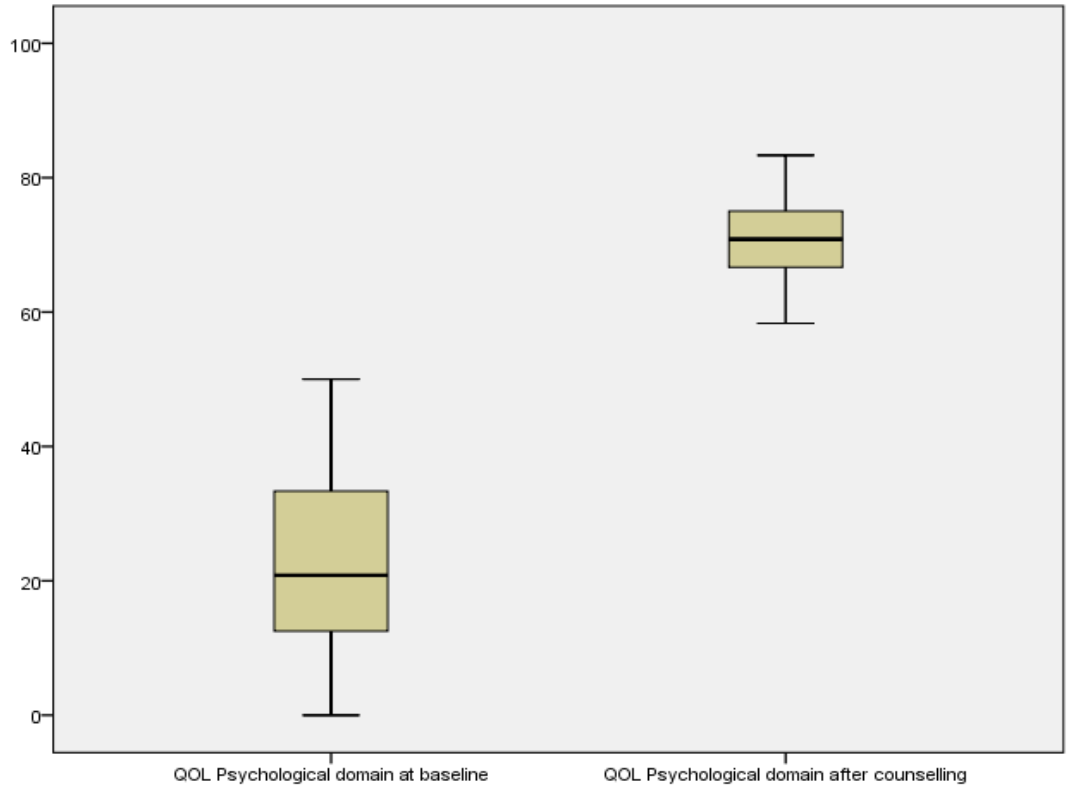
Figure 6.Comparison QOL at baseline and after three months abstinence-Physical domain



Baseline mean score is 38.33±12.82 and after three months abstinence is 82.14±5.47

P value = 0.000 (Highly significant)

Figure 7. Comparison QOL at baseline and after three months abstinence- Psychological domain

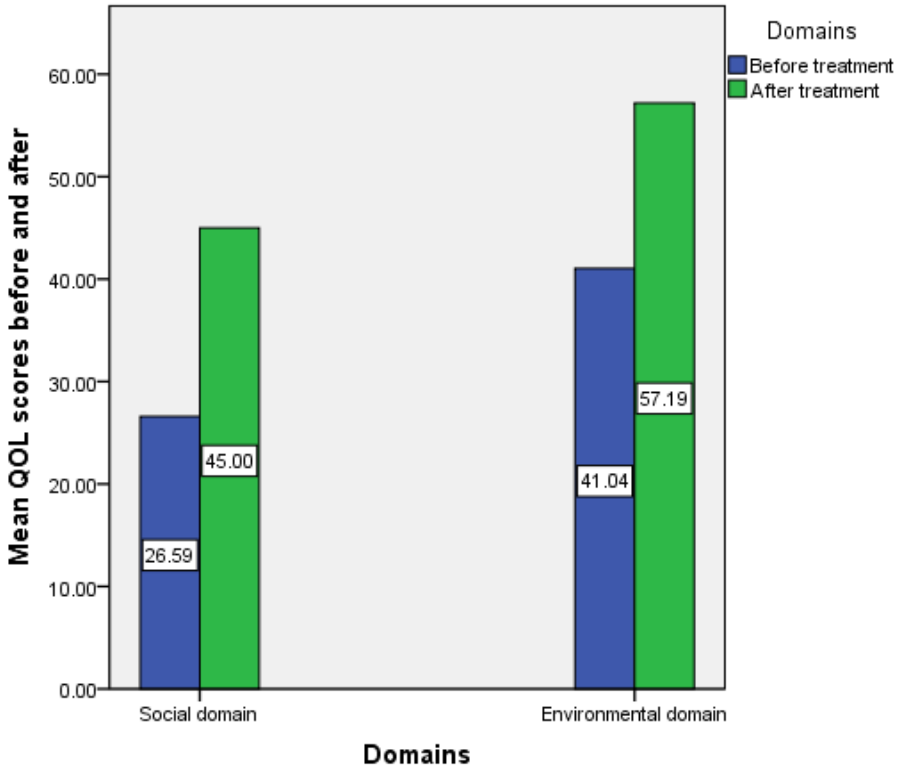


Baseline score is 22.64±13.34

Three months score is 70.42±7.53

P value = 0.000 (Highly significant)

Figure 8. Comparison QOL at baseline and after three months abstinence in Social domain and Environmental domain.



Baseline score of the social domain is 26.59±11.24 and after three months score is 45.00±13.36 with very high statistical significance.(P value is 0.000)

In environmental domain, the mean score at baseline is 41.04±8.39 and After three months follow-up is 57.19±5.07.

P value is 0.000 = highly significant.

Table 4. Factors associated with improvement in domain scores

Five variables associated with improvement in various domain scores were shown in Table 4.

Variables	Domain	Mean change	Mean difference in scores between two groups (95% C.I)	p value
H/o alcohol related accidents Yes(10) No(20)	Physical	51.07 40.17	10.89 (0.595 – 21.19)	0.039
H/o alcohol use in family Yes (11) No (8)	Psychological	24.24 8.33	15.90 (3.24 -28.58)	0.017
Duration of drinking <16 years(11) ≥16years(18)	Social	7.82 9.11	-1.293	0.015
H/o alcohol related deaths in family Yes(12) No(18)	Environmental	19.8 13.72	6.08 (1.50-10.65)	0.011
Percentage of income spent on alcohol 25-50% (21) 51-75% (6)	Environmental	14.43 20.83	-6.39(-11.39 to -1.40)	0.014

In our study, percentage of income spent on alcohol significantly associated with improvement in environmental domain. Shruti srivastava et;al. [22] and Morgan MY et.al, [105] studies showed that monthly income had significant association with improvement. Quantity of alcohol consuming and level of education had significant values in that study, but not significant in our study.

The variables Alcoholics in family members and Alcoholic deaths in the family showed low baseline scores and marked improvement after three months follow-up.

Successful improvement of QoL achieved in this De-addiction centre by;

- Strict alcohol abstinence,
- Efficient management of withdrawal symptoms, detoxification and deaddiction
- Totally free of cost investigations and treatment.
- Treating other medical and psychiatric problems
- Effective counseling to the patients and family members of the patient

- Regular and sincere meetings arranged by Alcohol Anonymous team
- Daily yoga and meditation activities by experts
- Various recreation activities like watching TV, playing chess and Carrom board like healthy indoor games etc.
- Patient friendly hospital atmosphere
- creating positive family environment and ensure accompanying of close family member with the patient during follow-up
- Effective system to trace out the missing and discontinued patients.

SUMMARY

Generally psychiatric morbidities are less diagnosed and less reported in our Country due to social stigma and lack of awareness. Alcohol dependency is even more socially stigmatized problem. Very few alcohol dependents come forward for diagnosis and treatment. Many studies have been done to assess the quality of life in alcohol dependents using various scales. Studies related to QoL in alcohol dependents using WHO QoL BREF-26 questionnaire in our country is minimal. This study was done in Govt. Deaddiction centre, Communicable Diseases Hospital, Tondiarpet, Chennai. The sociodemographic profile, general health, alcohol related questionnaire, SADD questionnaire and WHO QoL BREF26 questionnaire were applied to the 30 participants.

All domain scores at baseline were reduced in comparison with scores for healthy people but significantly improved after three months management.

Factors associated with low QoL at baseline are,

1. Other substance abuse
2. Alcohol use in family members
3. Alcohol related deaths in the family
4. Percentage of income spent on alcohol

Factors associated with marked improvement in domain scores are,

1. Alcohol related accidents
2. Alcohol use in family members
3. Duration of drinking
4. Alcohol related deaths in the family

Degree of dependence did not have significant association with all domain scores of QoL.

Our results were in concordance with national and international studies.

RECOMMENDATIONS

- Since the prevalence of alcohol dependents continuously increasing, more Govt.de addiction centers across the state will be needed.
- School based alcohol educational program that emphasis on abstention or at least on delaying the age of start of drinking must be implemented.
- Providing and encouraging alternative activities
- Regulating the availability and conditions of use
- Involving social and religious movements like alcoholic anonymous and other Non-governmental groups.
- Sensitization / training of medical and paramedical personals in identifying alcohol dependence at the primary care level.
- Establishing a specific treatment system for alcohol related problems.
- Positive family and social environment should be very essential to maintain the abstinence

LIMITATIONS

- Short period of follow up (3months)
- Treatment variables on QoL can be studied in longer follow-up.
- Alcohol dependence and degree of dependence were assessed by only clinical interview, biochemical investigations should be evaluated.
- This study was done in Govt. deaddiction centre only. There are several private deaddiction centers in Chennai. Without studying their role in treating alcohol dependence , this study doesn't give holistic approach.
- Factors like accessibility and availability of alcohol which play an important role in alcohol dependence should be studied.
- Because of this study was done in Govt. deaddiction centre, the results can't be generalized to general population.

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ANNEXURE - 1

SOCIO DEMOGRAPHIC, GENERAL HEALTH AND ALCOHOL RELATED QUESTIONNAIRE:

1. NAME:

2. AGE: 1) <30 years 2) 31-40 years 3) >40years

3. EDUCATION:

1) Illiterate 2) Primary school or literate 3) Middle school certificate 4) High school certificate

5) Intermediate, post high school diploma 6) Graduate or post graduate 7) Professional or honors

4. OCCUPATION:

1) Unemployed 2) Unskilled worker 3) Semiskilled worker 4) Skilled worker 5) Clerical, shop owner, farmer

6) Semi profession 7) Profession

5) TOTAL FAMILY INCOME: 1) <1977 2) 1978-5875 3) 5876-9792 4) 9793-14689 5) 14690-19586

6) 19587-39173 7) >39174

6. ORDER OF BIRTH: 1) First 2) Middle 3) Last 4) Only male 5) Only child

7. MARITAL STATUS: 1) Single 2) Married 3) Separated

8. LIVING ARRANGEMENTS: 1) Resides in family 2) With friends or distant relatives 3) Lives alone

9. MOTIVATED BY: 1) Wife 2) Parents & family members 3) Other relatives 4) Friends

10. PRESENCE OF SELF MOTIVATION: 1) Yes 2) No

11. LIVING AREA: 1) Urban 2) Rural 3) Urban slum

12. RELIGION: 1) Hindu 2) Christians 3) Muslims 4) Others

13. No. OF YEARS DRINKING: 1) <5yrs 2) 5 - <10yrs 3) 11 - <15yrs 4) 16 -<20yrs 5) >20yrs

14. TYPE OF ALCOHOL USE: 1) Brandy 2) Rum 3) Anything

15. QUANTITY: 1) Quantity.1/4(180ml) 2) 1/2(360ml) 3) 3/4(540ml) 4) 1(720ml)

16. PHYSICAL SYMPTOMS (Tremors, Insomnia, Fits, Nausea and Aches pains): 1) Yes 2) No

17. MEDICAL PROBLEMS (Haematemesis, Jaundice, Bleeding piles, Neuritis and Skin problems): 1) Yes 2) No

18. PSYCHIATRIC SYMPTOMS (Depression, Aggressive out bursts, Hallucinations, Paranoid ideas, Suicidal ideation/attempts and Deliberate self-harm) : 1)Yes 2)No

19. CHRONIC HEALTH PROBLEM: 1) Yes 2) No

20. CHRONIC HEALTH PROBLEM: 1) CNS 2) CVS 3) RS 4) GIT

21. OTHER SUBSTANCE USE : 1) Yes 2) No

22. TYPE OF SUBSTANCE USED: 1) Tobacco 2) Ganja 3) Both

23. TYPE OF CONSUMPTION: 1) Smoking 2) Chewing 3) Both

24. DURATION OF OTHER SUBSTANCE USE: 1) <5 2) 6 - <10yrs 3) >10yrs

25. PPRIOR TREATMENT FOR ALCOHOLISM: 1) Yes 2) No

26. No. OF PRIOR TREATMENT ATTEMPTS: 1) One 2) Two 3) Three

27. TYPE OF TREATMENT: 1) Allopathy 2) Alternative Medicine 3) Native medicine

28. FAMILY h/o DRINKING: 1) Yes 2) No

29. ALCOHOLIC DEATHS IN THE FAMILY: 1) Yes 2) No

30. RELATIONSHIP OF ALCOHOLIC DEATHS: 1) 1st degree 2) 2nd degree

31. PSYCHIATRIC PROBLEM IN FAMILY MEMBERS: 1) Yes 2) No

32. RELATIONSHIP WITH THE PARTICIPANT: 1) 1st degree 2) 2nd degree

33. AGE OF STARTING WORK: 1) <14 2) >14

34. AGE OF START DRINKING: 1) <18 2) >18

35. PERCENTAGE OF INCOME SPENT FOR DRINKING PER MONTH: 1) <25 2) 26-50 3) 51-75 4) >75

36. H/O FAMILY VIOLENCE: 1) Yes 2) No

37. H/O VIOLENCE WITH OUTSIDERS: 1) Yes 2) No

38. H/O DRUNKEN DRIVE : 1) Yes 2) No

39. H/O ACCIDENTS: 1) Yes 2) No

Annexure - II

Assessment of dependence - Short Alcohol Dependence Data Questionnaire (SADD)

Each question is read out to the client and his responses are recorded. Can be self administered.

INSTRUCTIONS : The following questions cover a wide range of topics to do with drinking. Please read each question carefully but do not think too much about its exact meaning. Think about your MOST RECENT drinking habits and answer each question by placing a tick (✓) under the MOST APPROPRIATE heading. If you have any difficulties ASK FOR HELP.

S. No.		0 Nearly never	1 Sometimes	2 Often	3 Always
1.	Do you find difficulty in getting the thought of drinking out of your mind?				
2.	Is getting drunk more important than your next meal?				
3.	Do you plan your day around when and where you can drink?				
4.	Do you drink in the morning, afternoon and evening?				
5.	Do you drink for the effect of alcohol without caring what the drink is?				
6.	Do you drink as much as you want irrespective of what you are doing the next day?				
7.	Given that many problems might be caused by alcohol do you still drink too much?				
8.	Do you know that you won't be able to stop drinking once you start?				
9.	Do you try to control your drinking by giving it up completely for days or weeks at a time?				
10.	The morning after a heavy drinking session do you need your first drink to get yourself going?				
11.	The morning after a heavy drinking session do you wake up with a definite shakiness of your hands?				
12.	After a heavy drinking session do you wake up and retch or vomit?				
13.	The morning after a heavy drinking session do you go out of your way to avoid people?				
14.	After a heavy drinking session do you see frightening things that later you realize were imaginary?				
15.	Do you go drinking and the next day find you have forgotten what happened the night before?				

Scoring :

The 15 items summed for a total score than can range from 0 to 45. Scale total is interpreted as follows :

1-9 : Low dependence 10-10 : Medium dependence 20 or greater : High dependence.

ANNEXURE - III
The World Health Organization Qulity of Life (WHOQOL) - BREF

The following questions ask how you feel about your quality of life, health, or other areas of your life. I will read out each question to you, along with the response options. **Please choose the answer that appears most appropriate.** If you are unsure about which response to give to a question, the first response you think of is often the best one.

Please keep in mind your standards, hopes, pleasures and concerns. We ask that you think about your life **in the last four weeks.**

		Very poor	Poor	Neither poor nor good	Good	Very good
1.	How would you rate your quality of life?	1	2	3	4	5

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
2.	How satisfied are you with your health?	1	2	3	4	5

The following questions ask about **how much** you have experienced certain things in the last four weeks.

		Not at all	A little	A moderate amount	Very much	An extreme amount
3.	To what extent do you feel that physical pain prevents you from doing what you need to do?	5	4	3	2	1
4.	How much do you need any medical treatment to function in your daily life?	5	4	3	2	1
5.	How much do you enjoy life?	1	2	3	4	5
6.	To what extent do you feel your life to be meaningful?	1	2	3	4	5

		Not at all	A little	A moderate amount	Very much	Extremely
7.	How well are you able to concentrate?	1	2	3	4	5
8.	How safe do you feel in your daily life?	1	2	3	4	5
9.	How healthy is your physical environment?	1	2	3	4	5

The following questions ask about how completely you experience or were able to do certain things in the last four weeks.

		Not at all	A little	Moderately	Mostly	Completely
10.	Do you have enough energy for everyday life?	1	2	3	4	5
11.	Are you able to accept your bodily appearance?	1	2	3	4	5
12.	Have you enough money to meet your needs?	1	2	3	4	5
13.	How available to you is the information that you need in your day-to-day life?	1	2	3	4	5
14.	To what extent do you have the opportunity for leisure activities?	1	2	3	4	5

		Very poor	Poor	Neither poor nor good	Good	Very good
15.	How well are you able to get around?	1	2	3	4	5

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
16.	How satisfied are you with your sleep?	1	2	3	4	5
17.	How satisfied are you with your ability to perform your daily living activities?	1	2	3	4	5
18.	How satisfied are you with your capacity for work?	1	2	3	4	5
19.	How satisfied are you with yourself?	1	2	3	4	5

20.	How satisfied are you with your personal relationships?	1	2	3	4	5
21.	How satisfied are you with your sex life?	1	2	3	4	5
22.	How satisfied are you with the support you get from your friends?	1	2	3	4	5
23.	How satisfied are you with the conditions of your living place?	1	2	3	4	5
24.	How satisfied are you with your access to health services?	1	2	3	4	5
25.	How satisfied are you with your transport?	1	2	3	4	5

The following question refers to how often you have felt or experienced certain things in the last four weeks.

		Never	Seldom	Quite often	Very often	Always
26.	How often do you have negative feelings such as blue mood, despair, anxiety, depression?	5	4	3	2	1

Do you have any comments about the assessment?

_____

_____

[The following table should be completed after the interview is finished]

		Equations for computing domain scores	Raw score	Transformed scores*	
				4-20	0-100
27.	**Domain 1**	(6-Q3) + (6-Q4) + Q10 + Q15 + Q16 + Q17 + Q18 ☐ + ☐ + ☐ + ☐ + ☐ + ☐ + ☐	a. =	b:	c:
28.	**Domain 2**	Q5 + Q6 + Q7 + Q11 + Q19 + (6-Q26) ☐ + ☐ + ☐ + ☐ + ☐ + ☐	a. =	b:	c:
29.	**Domain 3**	Q20 + Q21 + Q22 ☐ + ☐ + ☐	a. =	b:	c:
30.	**Domain 4**	Q8 + Q9 + Q12 + Q13 + Q14 + Q23 + Q24 + Q25 ☐ + ☐ + ☐ + ☐ + ☐ + ☐ + ☐ + ☐	a. =	b:	c:

* See Procedures Manual, pages 13-15

Annexure - IV

உங்களைப் பற்றி விவரங்கள்

எண். –

ஆண் / பெண் –

பிறந்த தேதி –

படிப்பு விவரங்கள் – படிக்கவில்லை
சிறு நிலைப்பள்ளி
மேல்நிலைப்பள்ளி
காலேஜ்

திருமணம் – திருமணம் ஆகவில்லை
திருமணமானவர்
மனைவி/கணவனை பிரிந்து வாழ்பவர்
விவாகரத்து பெற்றவர்
மனைவி/கணவனை இழந்தவர்.

மதம் –

பொருளாதார நிலை – கீழ்மட்டம்
நடுமட்டம்
மேல்மட்டம்

குடும்பம் அமைப்பு – கூட்டுக்குடும்பம்
தனிக்குடித்தனம்

இப்ப உங்களுக்கு வேல இருக்கா – வேல இருக்கு
வேல இல்ல
இல்லத்தரசி

உங்களுக்கு ஏதாவது உடல்நலப் பிரச்சனைகள் இருக்கா?
1. ஆமாம் 2. இல்லை.

ஆம் என்றால், விவரங்கள் –
– –
அதற்கான எத்தனை நாளாக இருக்கிறது – – – – – – – – – – – – – –
( ) – – – – – – – – – – – – – – – – – –

விதிமுறைகள் :–

இந்த கேள்விகள், உங்கள் வாழ்க்கைத்தரம், உடல்நலம், மற்றும் உங்கள் வாழ்க்கையின் மற்றப்பகுதிகள் பற்றி நீங்கள் என்ன உணர்கிறீர்கள் என்பதை பற்றி உள்ளன. தயவு செய்து, எல்லா கேள்விகளுக்கும் பதில் கொடுக்கவும், ஒரு கேள்விக்கு என்ன பதிலளிப்பது என்று குழப்பம் ஏற்பட்டால், எந்த பதில் மிகவும் ஏற்றதாக உள்ளதோ, அதை தேர்ந்தெடுக்கவும், இந்தப்பதில் பெரும்பாலும் உங்களுடைய முதல் பதிலாக இருக்கும்.

... 2

உங்கள் தரம், நம்பிக்கைகள், இன்பம், அக்கறை ஆகியவற்றை மனதில் வைத்துக்கொள்ளவும், கடந்த இரண்டு வாரங்களாக உள்ள உங்கள் வாழ்க்கையைப் பற்றி நினைத்துக்கொள்ளுமாறு கேட்கிறோம்.

உதாரணமாக, கடந்த இரண்டு வாரங்களை நினைக்கும்போது,

கேள்வி: உங்களுக்கு வேண்டிய ஆதரவு மத்தவங்ககிட்ட இருந்து கிடைக்குதா ?

இல்லவே இல்லை	சிறிதளவு	ஓர் அளவு	அதிகமாக	முழுமையாக
1	2	3	4	5

கடந்த இரண்டு வாரங்களில், உங்களுக்கு கிடைக்கும் ஆதரவு பற்றி குறிக்கும் எண்களை சுற்றி ஒரு வட்டம் போடவும், உங்களுக்கு கிடைக்கும் ஆதரவு அதிகமாக இருந்தால் 4-ம் எண்ணைச் சுற்றி ஒரு வட்டம் போடவும்.

" உங்களுக்கு வேண்டிய ஆதரவு மத்தவங்ககிட்ட இருந்து கிடைக்குதா ? "

இல்லவே இல்லை	சிறிதளவு	ஓர் அளவு	அதிகமாக	முழுமையாக
1	2	3	4	5

உங்களுக்கு ஆதரவு கிடைக்கவே இல்லை என்றால், 1-ஆம் எண்ணைச் சுற்றி ஒரு வட்டம் போடவும்.

எல்லா கேள்விகளையும் படித்து, உங்கள் உணர்ச்சிகளை மதிப்பிட்டு, ஒவ்வொரு கேள்விக்கும் ஏற்ற எண்களைச் சுற்றி ஒரு வட்டம் போடவும்.

	ரொம்ப மோசம்	மோசம்	நல்லாவு மில்லை/ மோசமாவு மில்லை.	நல்லா யிருக்கு	ரொம்ப நல்லாயிருக்கு
1. உங்களுடைய வாழ்க்கைத்தரத்தை எப்படி மதிப்பிடறீங்க?	1	2	3	4	5
	மிகவும் அதிருப்தி		திருப்தியுமில்லை அதிருப்தியுமில்லை	திருப்தி	மிகவும் திருப்தி
2. உங்கள் உடல் நலத்தைப்பற்றிஎந்த அளவுக்கு திருப்தியாக இருக்கீங்க ?	1	2	3	4	5

கீழே உள்ள கேள்விகள், நீங்கள் கடந்த இரண்டு வாரங்களில் எந்த அளவு சிரமத்தினை அனுபவித்திருக்கிறீர்கள் என்பதைப் பற்றி உள்ளன.

	இல்லவே இல்லை	சிறிதளவு	ஓர் அளவு	அதிகமான	மிகவும் அதிகமான
3. நீங்கள் செய்ய வேண்டியதை செய்வதற்கு வலி எந்தஅளவிற்கு தடையாக உள்ளது?	1	2	3	4	5

		இல்லவே இல்லை	சிறிதளவு	ஓரளவு	அதிகமான	மிகவும் அதிமான
4.	தினசரி வாழ்க்கையில் செயல்பட உங்களுக்கு மருத்துவ சிகிச்சை எந்த அளவுக்கு தேவைப்படுகிறது ?	1	2	3	4	5
5.	நீங்கள் வாழ்க்கையை எந்த அளவிற்கு சந்தோஷமாக அனுபவிக்கிறீர்கள் ?	1	2	3	4	5
6.	உங்கள் வாழ்க்கை எந்த அளவு அர்த்தம் உடையதாக உள்ளது என்று தோன்றுகிறது?	1	2	3	4	5
7.	உங்களால் எந்த அளவிற்கு நன்றாக சுவனம் செலுத்த முடிகிறது?	1	2	3	4	5
8.	உங்கள் சுற்றுச் சூழல் எவ்வளவு ஆரோக்கியமாக உள்ளது?	1	2	3	4	5
9.	உங்கள் தினசரி வாழ்க்கையில் எந்த அளவுக்கு பாதுகாப்பு உணர்கிறீர்கள் ?					

கீழே உள்ள கேள்விகள் கடந்த இரண்டு வாரங்களில் உங்களால் எவ்வளவு முழுமையான சிலவற்றை அனுபவிக்க அல்லது செய்ய முடிகிறது என்பதைப்பற்றி உள்ளது.

		இல்லவே இல்லை.	சிறிதளவு	ஓரளவு	அதிகமாக	மிகவும் முழுமையான
10.	தினசரிவாழ்க்கைக்கு போதுமான சக்தி இருக்கிறதா?	1	2	3	4	5
11.	உங்கள் உடல் தோற்றத்தை உங்களால் ஏற்றுக் கொள்ள முடிகிறதா?	1	2	3	4	5
12.	உங்கள் தேவைகளை பூர்த்திசெய்வதற்கு போதுமான பணம் இருக்கிறதா?	1	2	3	4	5
13.	தினசரி வாழ்க்கையில் உங்களுக்கு தேவையான தகவல்கள் எந்தஅளவுக்கு கிடைக்கக் கூடியதாக உள்ளது ?	1	2	3	4	5

		இல்லவே இல்லை	சிறிதளவு	ஓரளவு	அதிகமாக	முழுமையாக
14.	பொழுதுபோக்கு செயல்பாடுகளில் ஈடுபடுவதற்கு எந்த அளவில் சந்தர்ப்பங்கள் உள்ளது ?	1	2	3	4	5
15.	உங்களால் எவ்வளவு நன்றாக நடமாட முடிகிறது ?	1	2	3	4	5

கீழே உள்ள கேள்விகள், உங்கள் வாழ்க்கையில் வெவ்வேறு அம்சம் குறித்த நீங்கள் கடந்த இரண்டு வாரங்களில் திருப்தி அடைந்தீர்கள் என்பதைப் பற்றி உள்ளன.

16.	உங்கள் தூக்கம் குறித்து எவ்வளவு திருப்தியாக இருக்கிறீர்கள் ?	1	2	3	4	5
17.	தினசரி வாழ்க்கையில் நடவடிக்கைகளை செய்யும் உங்கள் திறமை குறித்து எவ்வளவு திருப்தியாக இருக்கிறீர்கள் ?	1	2	3	4	5
18.	உங்கள் வேலைக்குறிய தகுதி குறித்து எந்தஅளவு திருப்தியாக இருக்கிறீர்கள் ?	1	2	3	4	5
19.	உங்கள் உடலின்ப வாழ்க்கை குறித்து எவ்வளவு திருப்தியாக இருக்கிறீர்கள் ?	1	2	3	4	5
20.	உங்களை குறித்து எவ்வளவு திருப்தியாக இருக்கிறீர்கள் ?	1	2	3	4	5
21.	உங்கள் தனிப்பட்ட உறவுகள் குறித்து எவ்வளவு திருப்தியாக இருக்கிறீர்கள் ?	1	2	3	4	5
22.	உங்கள் நண்பர்களிடமிருந்து கிடைக்கும் ஆதரவு குறித்து எவ்வளவு திருப்தியாக இருக்கிறீர்கள் ?	1	2	3	4	5
23.	நீங்கள் வாழும் இடத்தின் நிலை குறித்து எவ்வளவு திருப்தியாக இருக்கிறீர்கள் ?	1	2	3	4	5
24.	மருத்துவவசதி கிடைக்கும் விதம் குறித்து எவ்வளவு திருப்தியாக இருக்கிறீர்கள் ?	1	2	3	4	5
25.	உங்களுடைய போக்குவரத்து குறித்து எவ்வளவு திருப்தியாக இருக்கிறீர்கள் ?	1	2	3	4	5

கீழே உள்ள கேள்விகள், நீங்கள் கடந்த இரண்டு வாரங்களில் எத்தனை முறை சிலவற்றை அனுபவிக்கிறீர்கள் என்பதைப் பற்றி உள்ளன.

	இல்லவே இல்லை	எப்பொழு தாவது	சில சமயம்	பல சமயம்	எப்பொழுதும்
26. துன்பமான உணர்ச்சிகள் அடிக்கடி ஏற்படுகிறதா? (உதாரணம், சோகம் இயலாமை, பதட்டம் மனத்தளர்வு)	1	2	3	4	5

இந்த மதிப்பீடு கருவில் உள்ள கேள்விகளுக்கு பதில் அளிப்பதற்கு யாராவது உதவி செஞ்சாங்களா? 1. ஆமாம். 2. இல்லை.

இந்த மதிப்பீட்டுக் கருவியை முடிப்பதற்கு எவ்வளவு நேரம் எடுத்துக்கிட்டீங்க ?

இந்த மதிப்பீட்டுக் கருவியைப் பற்றி நீங்க என்ன நினைக்கிறீங்க ?

உங்க உதவிக்கு நன்றி.

* * * * * * *

ANNEXURE V - KUPPUSWAMY SOCIOECONOMIC SCALE

ORIGINAL Kuppuswamy socioeconomic scale (Urban, 1976)

	Score
Education	
Profession or honours	7
Graduate or post graduate	6
Intermediate or post high school diploma	5
High school certificate	4
Middle school certificate	3
Primary school certificate	2
Illiterate	1
Occupation	
Profession	10
Semi-profession	6
Clerical, shop-owner, farmer	5
Skilled worker	4
Semi-skilled worker	3
Unskilled worker	2
Unemployed	1
Family income per month (in Rs.)	
≥2000	12
1000-1999	10
750-999	6
500-749	4
300-499	3
101-299	2
≤100	1
Socioeconomic class	
Upper	26-29
Upper middle	16-25
Lower middle	11-15
Upper lower	5-10
Lower	0<5

SOURCE: Bairwa M, Rajput M, Sachdeva S. Modified kuppuswamy's socioeconomic scale: social researcher should include updated income criteria, 2012. Indian J Community Med 2013;38:185-6

All India Consumer Price Index numbers for industrial workers (Base 2001 = 100) shows the current price index as 254 on March 2015

SOURCE: http://labourbureau.nic.in/indtab.html

UPDATED FAMILY INCOME RANGE ACCORDING TO MODIFIED KUPPUSWAMI SCALE:

(C)	Family income per month Latest revision (in Rs./month)			Score
1.		≥	39,174	12
2.	19,587	-	39,173	10
3.	14,690	-	19,586	6
4.	9,793	-	14,689	4
5.	5,876	-	9,792	3
6.	1,978	-	5,875	2
7.		≤	1,977	1

ANNEXURE - VI

PATIENT CONSENT FORM

Study detail : **"Assessment of Quality of Life in Alcohol dependents taking treatment in Govt. Deaddiction centre, Chennai"**

Study centre :

Patients Name :

Patients Age :

Identification Number :

Patient may check (_/) these boxes

I confirm that I have understood the purpose of procedure for the above study. I have the opportunity to ask question and all my questions and doubts have been answered to my complete satisfaction. ☐

I understand that my participation in the study is voluntary and that I am free to withdraw at any time without giving reason, without my legal rights being affected. ☐

I understand that sponsor of the clinical study, others working on the sponsor's behalf, the ethical committee and the regulatory authorities will not need my permission to look at my health records, both in respect of current study and any further research that may be conducted in relation to it, even if I withdraw from the study I agree to this access. ☐

However, I understand that my identity will not be revealed in any information released to third parties or published, unless as required under the law. I agree not to restrict the use of any data or results that arise from this study. ☐

I agree to take part in the above study and to comply with the instructions given during the study and faithfully cooperate with the study team and to immediately inform the study staff if I suffer from any deterioration in my health or well-being or any unexpected or unusual symptoms. ☐

I hereby consent to participate in this study. ☐

I hereby give permission to undergo complete clinical examination ☐

Signature/thumb impression: Signature of investigator:

Patients Name and Address: Study investigator's Name:

Annexure - VII

ஆராய்ச்சி தகவல் தாள்

சென்னை மாநகராட்சி தொற்று நோய் மருத்துவமனை வளாகத்திலுள்ள அரசு சிறப்பு மறுவாழ்வு மையத்தில் சிகிச்சை பெறும் நோயாளிகளின் வாழ்க்கைத்தரம் சிகிக்சைக்கு முன்பும், பின்பும் இடையே ஒரு ஒப்புமை குறித்து ஆராய்ச்சி செய்ய உள்ளோம்.

நீங்கள் இந்த ஆராய்ச்சியில் பங்கேற்க நாங்கள் விரும்புகிறோம். இந்த ஆராய்ச்சியில் பங்கேற்பதால் தங்களது நோயின் ஆய்வறிக்கையோ அல்லது சிகிச்சையோ பாதிக்கப்படாது என்பதையும் தெரிவித்துக்கொள்கிறோம்.

இந்த ஆராய்ச்சியின் முடிவுகளை அல்லது கருத்துகளை வெளியிடும்போதோ அல்லது ஆராய்ச்சியின்போதோ தங்களது பெயரையோ அல்லது அடையாளங்களையோ வெளியிட மாட்டோம் என உறுதி கூறுகிறோம்.

இந்த ஆராய்ச்சியில் பங்கேற்பது தங்களுடைய விருப்பத்தின்பேரில் தான் இருக்கிறது. மேலும் நீங்கள் எந்த நேரமும் இந்த ஆராய்ச்சியில் இருந்து பின் வாங்கலாம் என்பதையும் தெரிவித்துக்கொள்கிறோம்.

இந்த சிறப்பு பரிசோதனைகளின் முடிவுகளை ஆராய்ச்சியின்போதோ அல்லது ஆராய்ச்சியின் முடிவின்போதோ தங்களுக்கு அறிவிப்போம். என்பதையும் தெரிவித்துக்கொள்கிறோம்.

ஆராய்ச்சியாளர் கையொப்பம் பங்கேற்பாளர் கையொப்பம்

தேதி

s.no.	name	Age	age.<30=1,31-40=2,>40=3	education.prof=7,graduate=6,post	occupation.prof=10,semi-prof=6,clerical,ownshop,farmer=5,skilled	Total family income	income>30375=12,15188-30372=10,11362-15187=6,7592-11361=2,2	Total score	SE class. upper=1,upper middle=2,lower	order of birth.First=1,middle=2,last=3, only male=4	marital status.single=1,married=2,separated=3	living arrangements.resides in family=1,with	self motivation. y=1,n=2	area. urban=1,rural=2,urban slum=3	religion.h=1,c=2,m=3,others=4	motivated by.wife=1,parents&family mem	No of yrs drinking.<5 yrs=1,5-<10yrs=2,1	Type of alcohol use.brandy=1,rum=2,an	Quantity.1/4(180ml)=1,1/2(360ml)=2,3/4(540	Physical symtoms.y=1,n=2	Medical problems.y=1,n=	Psychiatric symptoms.y=1,n=2	chronic health problem.y=1,n=2	Chronic health problem.cns=1,cvs=2,rs=3,git=4	other substance use.y=1n=2	type of substance.tobacco=1,ganja=2,both=3,others=4	type of consuming.smoking=1,chewing=2,both=3	other substance using duration.<5=1,5-<10yrs=2,>10yrs=3	Prior treatment. y=1,n=2
1	SENTHIL KUMA	30	1	4	3	8000	3	6	4	2	1	1	2	1	1	2	2	1	2	1	1	1	2	999	2	999	999	999	2
2	HEMANADHAN	38	2	3	3	12000	4	10	4	1	2	1	1	1	1	1	3	1	1	1	1	1	1	4	2	999	999	999	2
3	C.DEVAN	38	2	2	3	7000	3	8	4	2	2	1	1	3	1	1	4	1	3	1	1	1	1	2	1	1	2	2	1
4	AMACHANDRA	20	1	5	1	5000	2	5	4	1	1	1	2	1	1	2	1	3	1	1	2	1	2	999	1	3	3	1	2
5	V.MUTHAIYAN	36	2	5	2	20000	10	21	2	2	1	1	1	3	2	3	3	1	3	1	2	1	2	999	1	1	3	2	1
6	R.ANTHONY	32	2	3	3	8000	3	9	4	2	3	1	1	1	2	2	3	1	2	1	2	1	1	4	1	1	2	2	2
7	.SATHISHKUMA	27	1	3	3	10000	4	11	3	2	2	1	1	1	1	1	2	1	2	1	2	1	1	4	1	1	2	1	2
8	P.PALPANDIYAN	42	3	3	3	14000	4	10	4	3	2	1	1	1	1	1	4	1	2	1	1	1	1	2	1	3	3	2	2
9	KANNAN	45	3	3	2	10000	4	11	3	3	2	1	1	1	1	3	5	3	3	1	1	2	1	2	1	1	2	3	2
10	D.PRAKASH	34	1	2	2	11000	4	10	4	1	1	1	1	3	1	2	4	1	2	1	2	1	2	999	1	1	3	3	2
11	J.DEVAKUMAR	25	1	1	2	15000	6	10	4	1	3	1	1	1	2	2	2	1	3	1	2	1	1	4	1	1	3	3	2
12	.KULOTHUNGA	40	2	3	2	25000	10	15	3	1	2	1	1	1	1	1	3	1	2	1	1	1	1	4	1	1	2	2	2
13	HARIKUMAR	26	1	5	5	10000	4	7	4	3	1	1	1	1	1	2	2	3	3	1	1	1	1	4	1	1	1	2	2
14	C.H.NARESH	18	1	2	2	12000	4	8	4	3	1	1	1	1	2	2	1	1	2	1	1	1	2	999	1	3	3	1	2
15	BOOBALAN	43	3	1	2	10000	4	7	4	2	2	1	1	3	1	2	5	1	2	1	2	2	2	999	1	1	2	2	2
16	JEYAKANTH	28	1	1	2	15000	6	9	4	3	2	1	2	1	1	2	2	1	3	1	1	1	2	999	1	2	1	1	1
17	.VENKATRAMA	42	3	1	5	13000	4	10	4	3	2	1	1	3	1	1	5	1	2	1	2	1	1	4	2	999	999	999	2
18	S.MAHESHRAJ	18	1	5	1	15000	6	12	3	1	1	1	1	1	1	3	1	3	1	1	1	1	2	999	1	2	1	1	2
19	T.MUNUSAMY	30	1	4	5	8000	3	5	4	3	3	1	1	3	2	4	2	1	1	1	1	1	1	4	1	1	2	2	1
20	JOHNSON	30	1	1	4	10000	4	9	4	3	2	1	1	1	2	1	3	1	4	1	1	1	1	4	1	2	1	1	1
21	EDWIN FRANC	35	2	3	3	6500	3	9	4	5	2	1	1	1	2	1	5	3	2	1	1	1	2	999	1	1	2	3	2
22	.MANIKANDAI	39	2	3	4	10000	4	11	3	3	2	1	1	1	1	3	4	1	1	1	1	2	2	999	1	1	2	2	2
23	D.KARTHIK	26	1	3	2	8500	3	9	4	1	2	1	1	3	1	1	2	3	1	1	1	2	1	4	1	1	2	1	2
24	R.ARAVIND	33	2	5	3	8500	3	5	4	1	1	1	1	3	2	2	5	3	1	1	1	1	2	999	1	1	3	2	2
25	P.ELUMALAI	29	1	4	3	20000	10	13	3	3	3	1	1	1	1	3	2	1	2	1	1	1	2	999	1	1	2	2	2
26	M.MURUGAN	36	2	1	3	7000	3	7	4	1	2	1	1	1	1	1	4	3	2	1	1	2	2	999	1	1	2	1	1
27	GOPI	26	1	3	2	11000	4	8	4	2	1	1	1	3	1	2	1	1	1	1	1	1	1	4	1	1	2	1	2
28	SAKKARAVART	32	2	3	1	15000	6	12	3	2	1	2	1	3	2	3	3	1	1	1	1	1	1	1	2	999	999	999	2
29	T.VADIVEL	43	3	5	3	10000	4	12	3	2	2	1	1	1	1	1	4	1	2	1	1	1	1	4	1	1	2	1	2
30	V.DHANASEKAF	34	2	3	3	10000	4	10	4	1	2	1	1	1	1	1	2	1	4	1	1	1	1	2	1	1	1	2	1

Attempts.1 =1,2=2,3=3	Type of treatment. allopathy=1 ,alternative medicine=2	drinking family members. y=1, n=2	Alcoholic death in family .y=1,n =2	Relationship.1st degree=1, 2nd degree=2	Pschiatric problem in family mem	relationship.1st degree=1, 2nd degree=2	Assessment of dependence.low=1, medi	age of starting work.<14=1 ,>15=2	age of start drinking.<18=1,>18=2	percentage of income fordrinking per month.<25 =1,26-50=2,51-75=3,>75=4	h/o family violence y=1, n=2	h/o violence with outsiders y=1,n =2	h/o drunken drive y=1,n =2	h/o accident y=1,n =2	pre treatment QoL - Physical domain	Post treatment QoL- Physical domain	Pre treatment QoL Psychological domain	Post treatment QoL Psychological domain	Pre treatment QoL Social domain	Post treatment QoL Social domain	Pre treatment QoL Environmental domain	Post treatment QoL Environmental domain
999	999	1	1	1	2	999	3	2	1	2	1	1	1	2	32.14	78.57	12.5	62.5			40.63	59.38
999	999	2	2	999	2	999	2	1	2	2	2	2	1	2	25	78.57	0	70.83	41.67	50	40.63	50
2	1	1	1	1	2	999	3	1	2	2	1	2	1	2	17.86	71.43	4.17	75	25	58.33	40.63	59.38
999	999	2	1	1	2	999	2	999	1	999	1	2	1	2	39.29	92.86	8.33	79.17			25	53.13
1	1	2	1	1	1	1	2	2	2	3	2	2	1	1	14.29	82.14	4.17	66.67			25	53.13
999	999	2	2	999	1	1	2	1	2	2	2	2	1	2	32.14	75	20.83	58.33	0	16.67	37.5	53.13
999	999	2	2	999	2	999	3	1	2	2	1	2	1	2	39.29	82.14	8.33	70.83	33.33	50	43.75	53.13
999	999	1	1	1	2	999	2	1	2	2	1	2	1	2	32.14	82.14	41.67	66.67	16.67	50	46.88	68.75
999	999	1	1	1	1	1	2	1	2	2	1	1	1	2	53.57	85.71	37.5	62.5	41.67	41.67	37.5	56.25
999	999	2	2	999	2	999	3	1	1	2	2	2	1	2	53.57	82.14	25	79.17			50	59.38
999	999	1	2	999	2	999	3	1	1	2	1	1	1	2	25	82.14	4.17	58.33	8.33	25	37.5	50
999	999	2	1	1	2	999	3	1	1	2	2	2	1	1	42.86	78.57	37.5	70.83	33.33	33.33	50	62.5
999	999	2	1	1	2	999	2	2	2	3	2	2	1	2	50	85.71	20.83	70.83			34.38	56.25
999	999	1	2	999	2	999	3	1	1	2	1	1	1	2	39.29	78.57	25	70.83			53.13	62.5
999	999	2	2	999	2	999	3	1	2	3	1	2	1	2	39.29	78.57	12.5	75	41.67	50	34.38	59.38
1	2	2	2	999	2	999	3	1	2	2	1	1	1	1	39.29	85.71	37.5	79.17	33.33	50	40.63	59.38
999	999	1	1	1	2	999	3	1	1	2	1	1	1	1	32.14	89.29	25	75	16.67	41.67	40.63	56.25
999	999	1	2	999	2	999	1	999	1	999	1	2	1	2	60.71	78.57	16.67	58.33			53.13	56.25
1	1	2	2	999	1	1	1	2	2	2	1	2	1	1	46.43	78.57	16.67	75	33.33	16.67	46.88	59.38
1	1	1	1	1	2	999	3	1	2	3	1	2	1	1	32.14	85.71	16.67	79.17	25	58.33	31.25	56.25
999	999	2	2	999	2	999	2	1	1	2	1	1	1	2	42.86	82.14	33.33	75	33.33	50	46.88	59.38
999	999	1	1	1	1	1	2	1	2	2	1	2	1	1	17.86	85.71	29.17	79.17	16.67	58.33	34.38	43.75
999	999	2	2	999	2	999	2	2	2	2	1	2	1	1	60.71	85.71	50	70.83	41.67	58.33	53.13	62.5
999	999	2	2	999	2	999	2	2	1	2	1	2	1	2	42.86	89.29	20.83	79.17			43.75	62.5
999	999	1	2	999	2	999	2	1	2	2	1	2	1	1	28.57	85.71	33.33	70.83	25	33.33	50	62.5
2	2	1	1	1	2	999	2	1	2	3	2	2	1	2	50	71.43	29.17	58.33	25	58.33	34.38	53.13
999	999	1	2	999	2	999	2	1	2	2	2	2	1	2	46.43	92.86	20.83	83.33			43.75	59.38
999	999	1	2	999	2	999	1	2	2	999	1	1	1	1	17.86	85.71	8.33	66.67	8.33		25	50
999	999	1	2	999	2	999	1	2	2	2	1	2	1	2	39.29	75	37.5	58.33	16.67	50	37.5	59.38
1	1	1	2	999	2	999	3	1	2	3	1	1	1	2	57.14	78.57	41.67	66.67	41.67	50	53.13	59.38